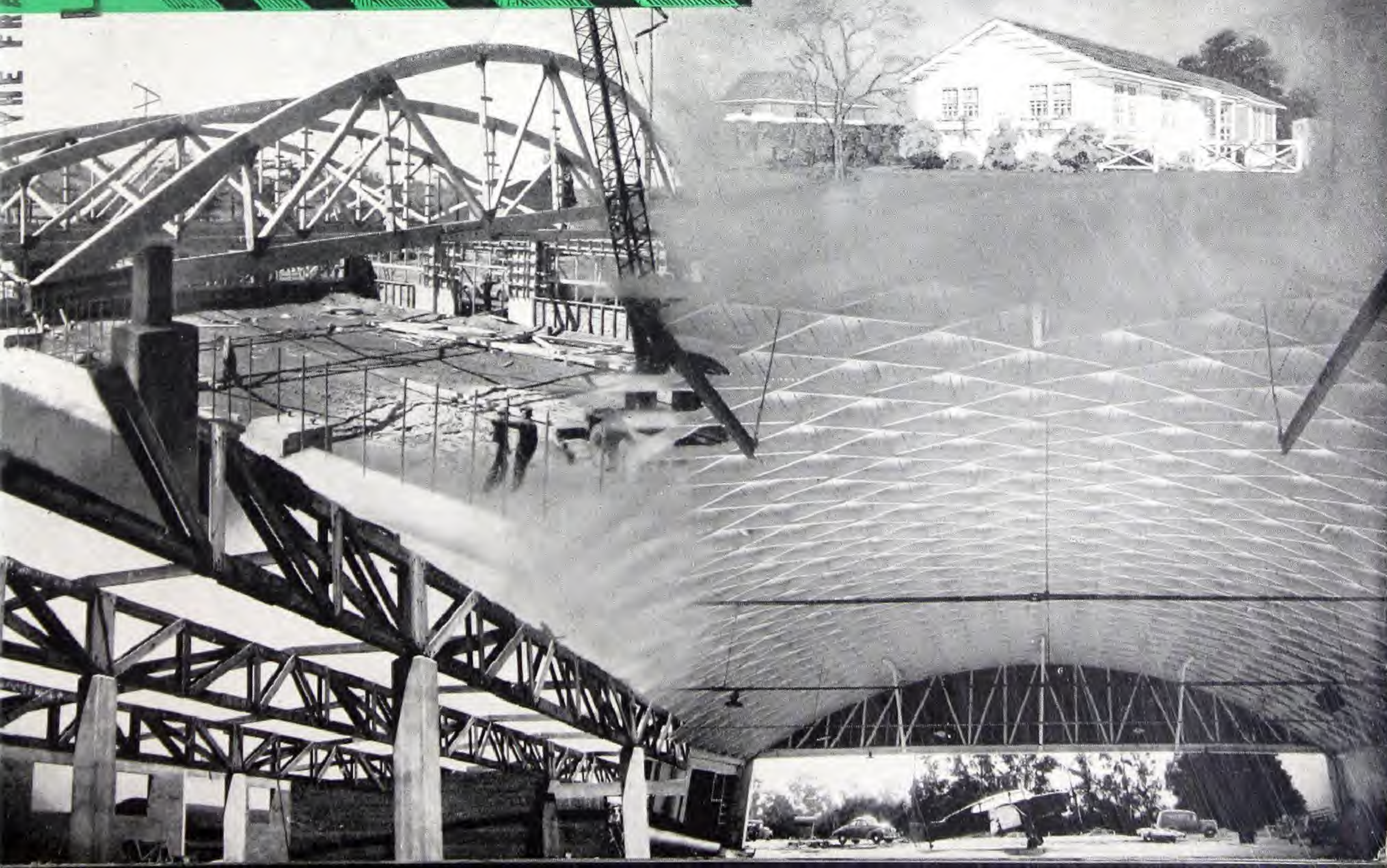
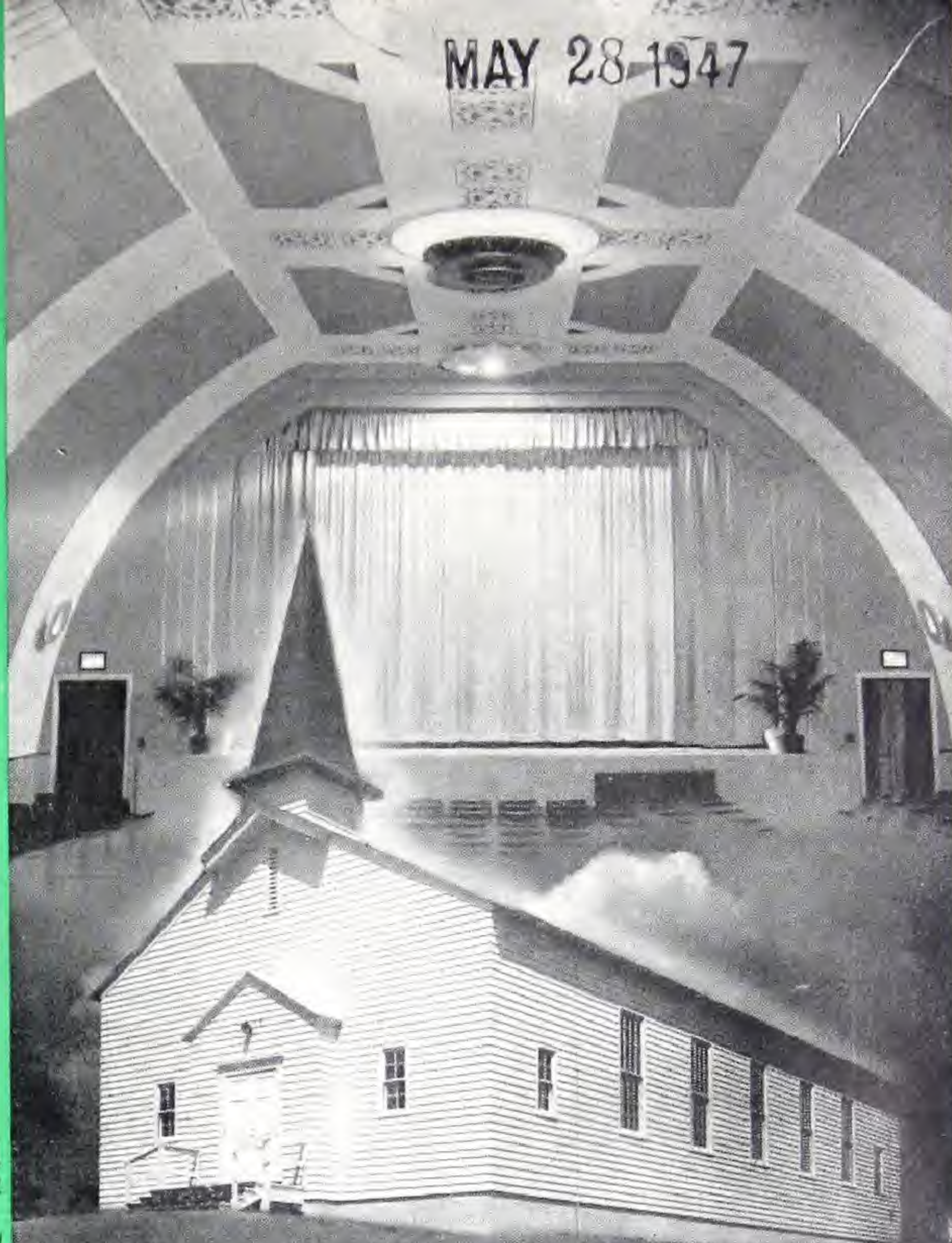
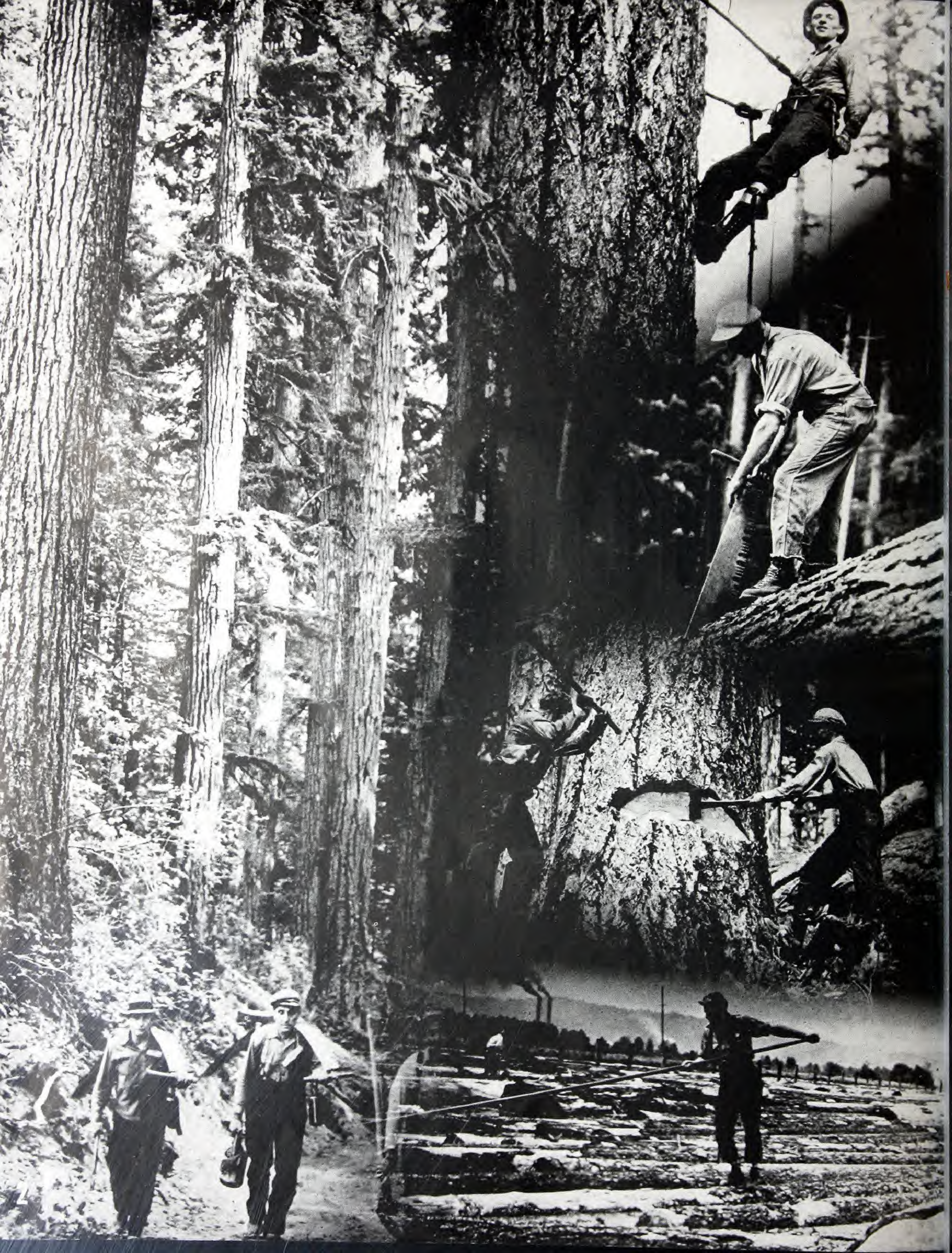


1030-1

Modern BUILDING with WOOD

THE FRANKLIN INSTITUTE
LIBRARY







MODERN BUILDING WITH WOOD

The forests from the beginning were America's principal source of building material and today they continue to be its most abundant natural resource.

During the war on the land, in the air and on the sea wood and forest products performed an infinite variety of services, dramatic and unsung. For camp facilities alone 1,500 board feet of lumber was supplied for each man in the armed forces. Billions of feet were used in boxes and crating. Wherever the soldier or sailor went America's forests in some form went with him—everything from a tent peg to a bomber.

In peace times, as before the war, our forests are building our homes, our schools, our churches and our factories. Four out of every five homes in America are built of wood and the remainder use wood in some form or other.

Today, timber and forest products take on a new significance. Through research and engineering the forest products industries are bringing to the American public new uses of wood in many forms.

And looking to the future the forest industries are continually working toward a regular, constant renewal of this vital resource. Everyone expects a wheat farm to yield successive crops year after year. That's the way farming is. Now people have the same idea about forest lands . . . "tree farms" they're called by the forest industries. That's what forest lands really are, and that is what they are becoming more and more.

In this pictorial we present to the architect, engineer, contractor, builder and the general consumer of wood a few typical examples of the use of wood and forest products in peace times. Illustrated are various uses of the Teco connector system of construction, Lamella construction, cigarette burnproof furniture, laminated ship keels, laminated hardwood rolls, prefabricated small homes, and many other uses of this easily worked material.

TIMBER ENGINEERING COMPANY

Washington 6, D. C.

Affiliated with

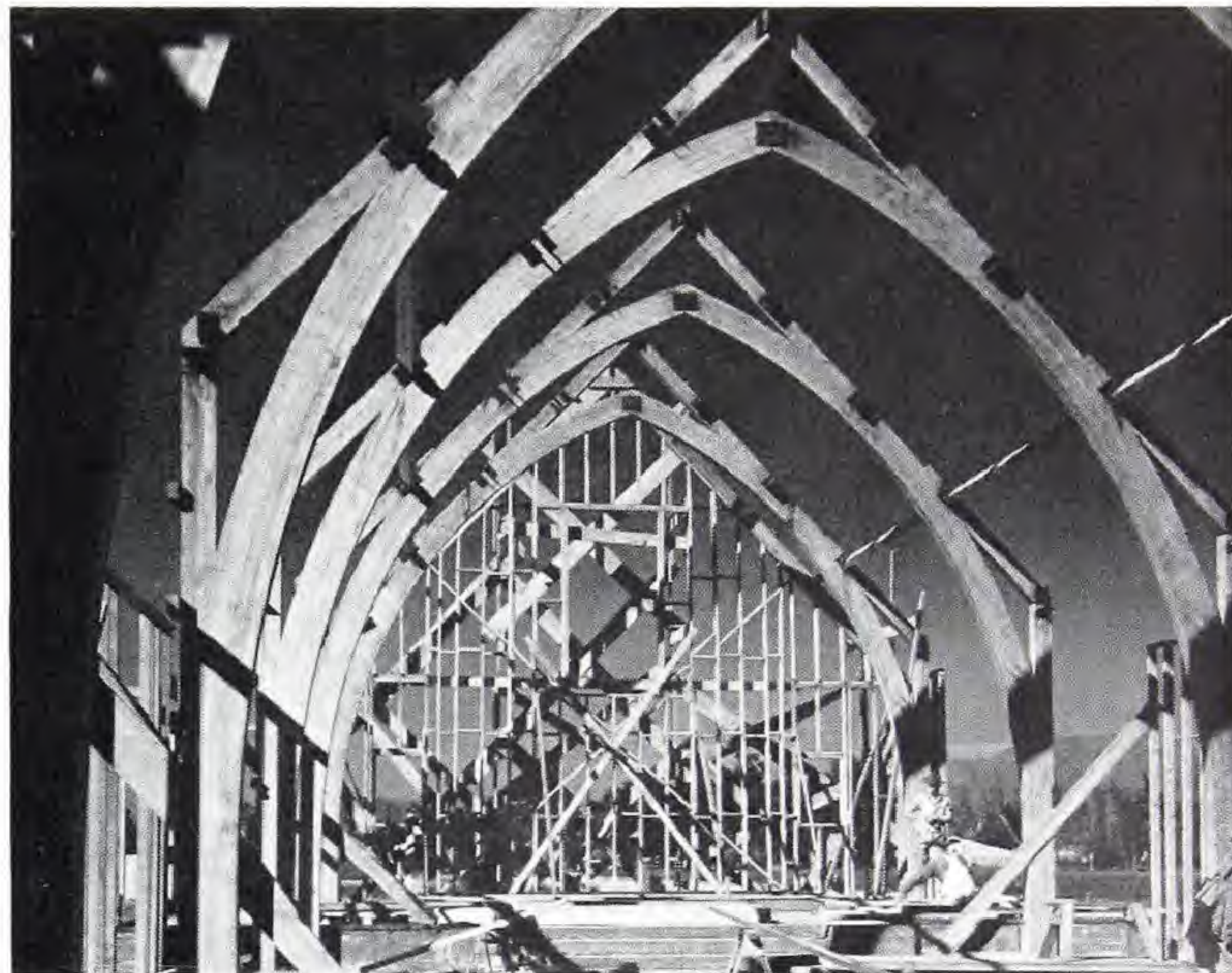
NATIONAL LUMBER MANUFACTURERS ASSOCIATION



Churches . . .



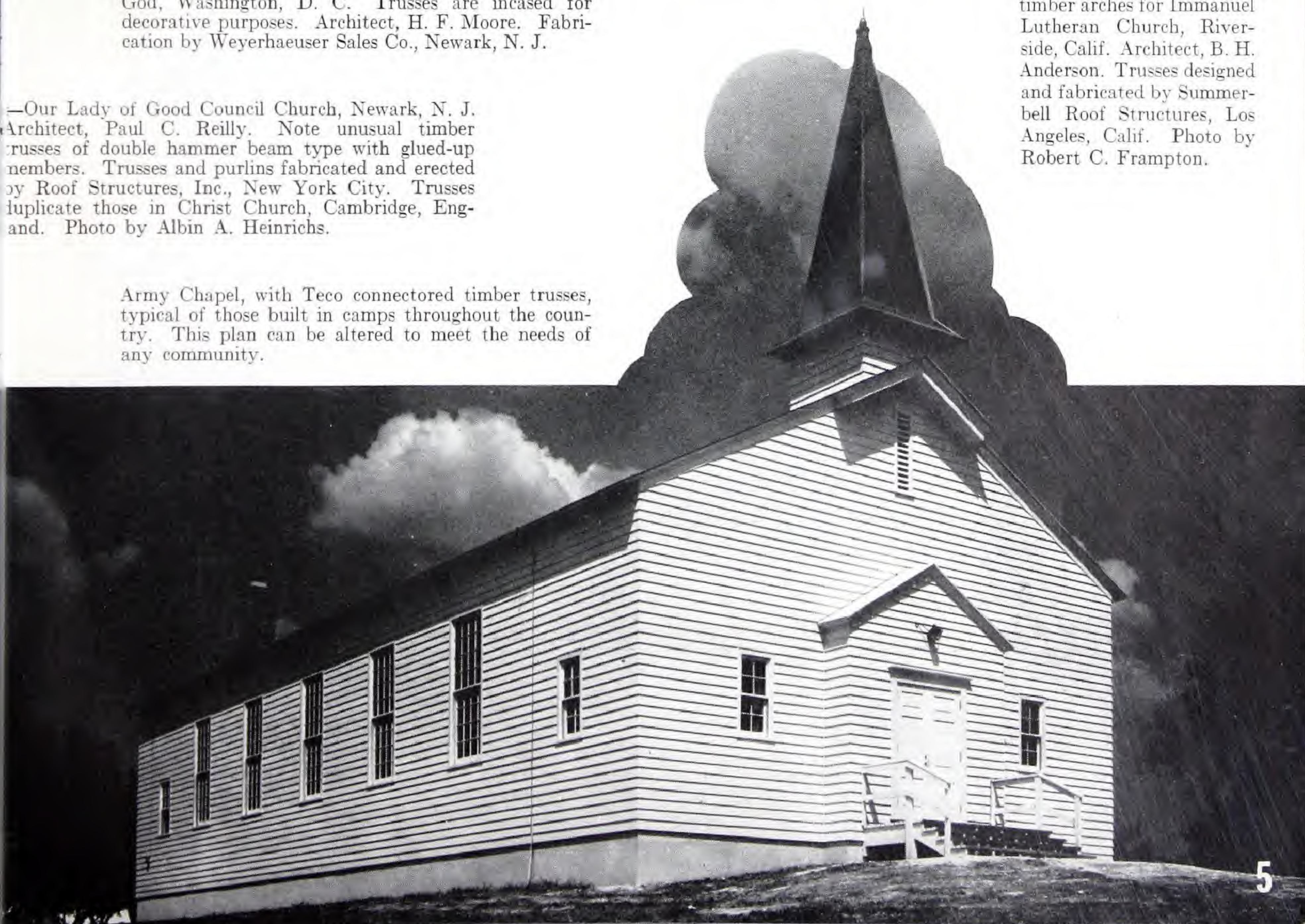
Scissors trusses, span $33\frac{1}{2}'$, spacing $12'$. Church of God, Washington, D. C. Trusses are incased for decorative purposes. Architect, H. F. Moore. Fabrication by Weyerhaeuser Sales Co., Newark, N. J.



Erecting glued, laminated timber arches for Immanuel Lutheran Church, Riverside, Calif. Architect, B. H. Anderson. Trusses designed and fabricated by Summerbell Roof Structures, Los Angeles, Calif. Photo by Robert C. Frampton.

—Our Lady of Good Council Church, Newark, N. J. Architect, Paul C. Reilly. Note unusual timber trusses of double hammer beam type with glued-up members. Trusses and purlins fabricated and erected by Roof Structures, Inc., New York City. Trusses duplicate those in Christ Church, Cambridge, England. Photo by Albin A. Heinrichs.

Army Chapel, with Teco connected timber trusses, typical of those built in camps throughout the country. This plan can be altered to meet the needs of any community.

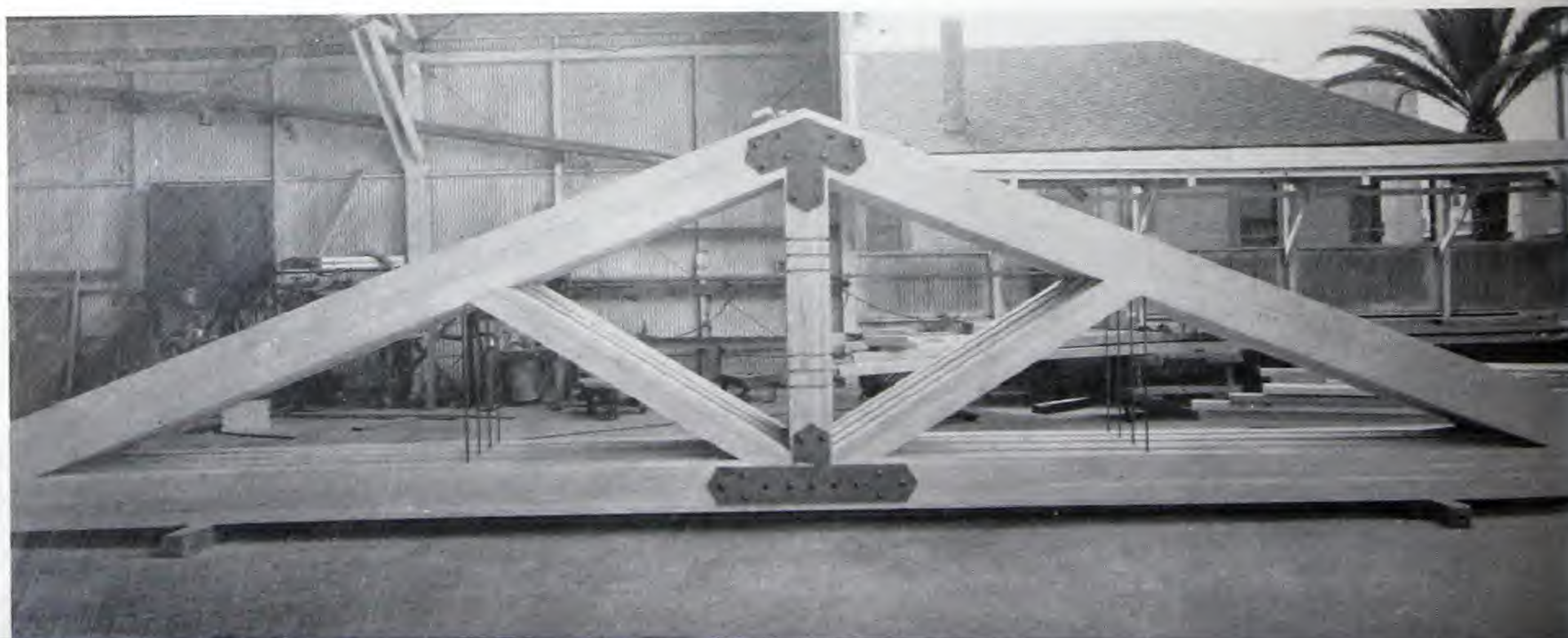


Churches . . .



Zion Lutheran Church, Leeds, Wisc. 38' x 60'. Boomerang glued, laminated arches fabricated by Rilco Laminated Products, Inc., St. Paul, Minn.

Six 41' A-type glued, laminated trusses, fabricated by Summerbell Roof Structures, Los Angeles, ready for shipment to Church of God, Phoenix, Ariz. Architects, Lescher and Mahoney.

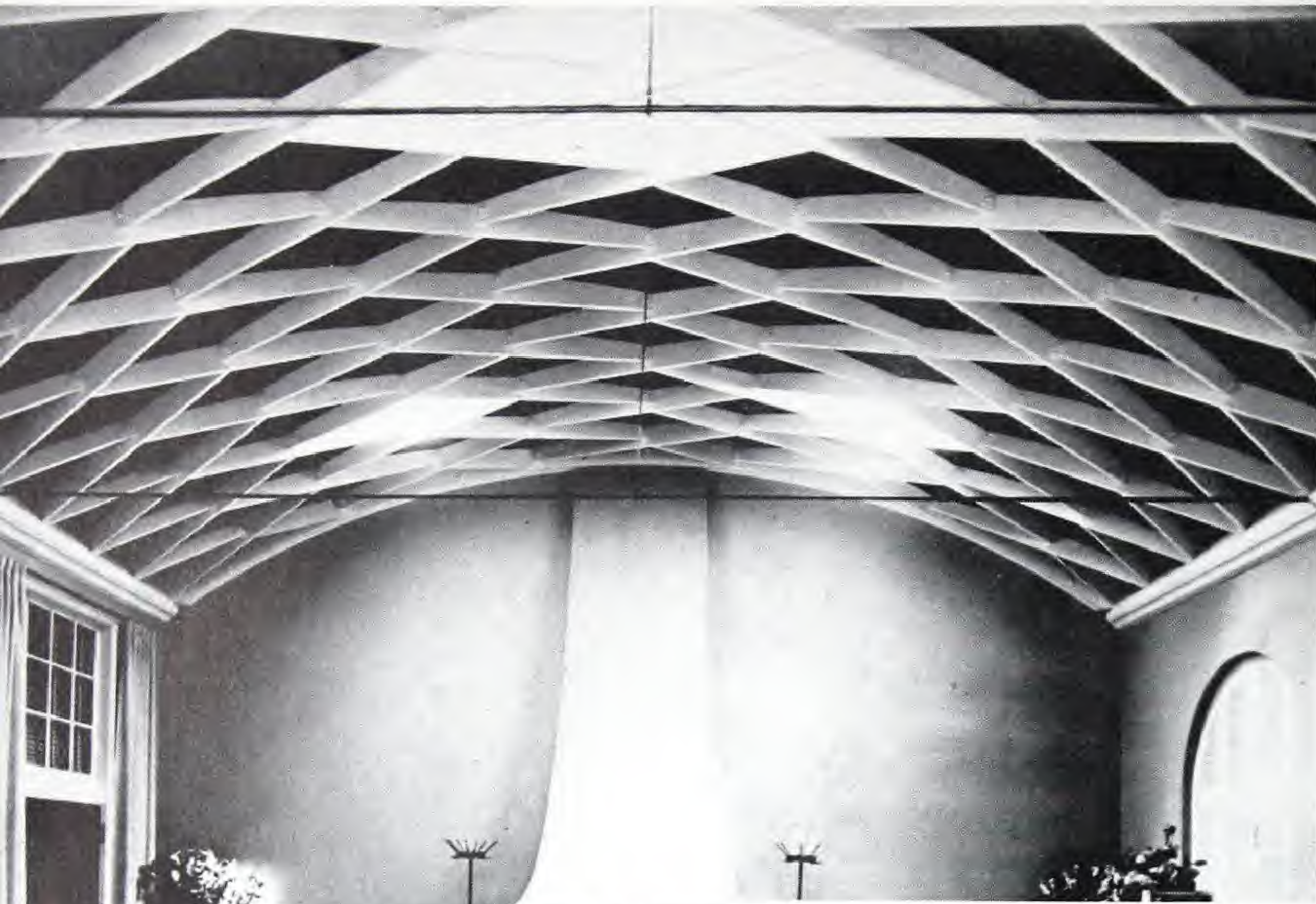


Dining Hall . . .

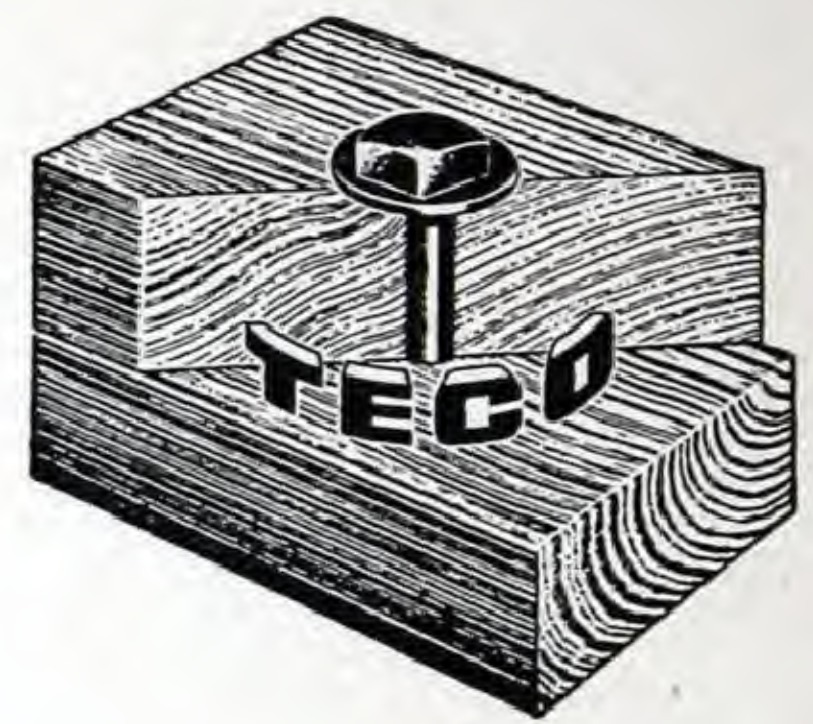


Dining Hall, University of Chicago. Timber trusses designed and fabricated by McKeown Bros. Company, Chicago. Architects, Zant-zinger, Borie and Medary.

Amusement Places . . .



Lamella roof, Palomar Hotel, Santa Cruz, California. Architects, Hertzga and Knowles. Lamella structure prefabricated by Summerbell Roof Structures, Oakland, Calif.



Recreation building, Great Lakes, Ill. Seven "V" type 52' glued, laminated unit arches. Height of arch column 22', height in center 26'. Arches designed and manufactured by Unit Structures Inc., Peshtigo, Wisc.



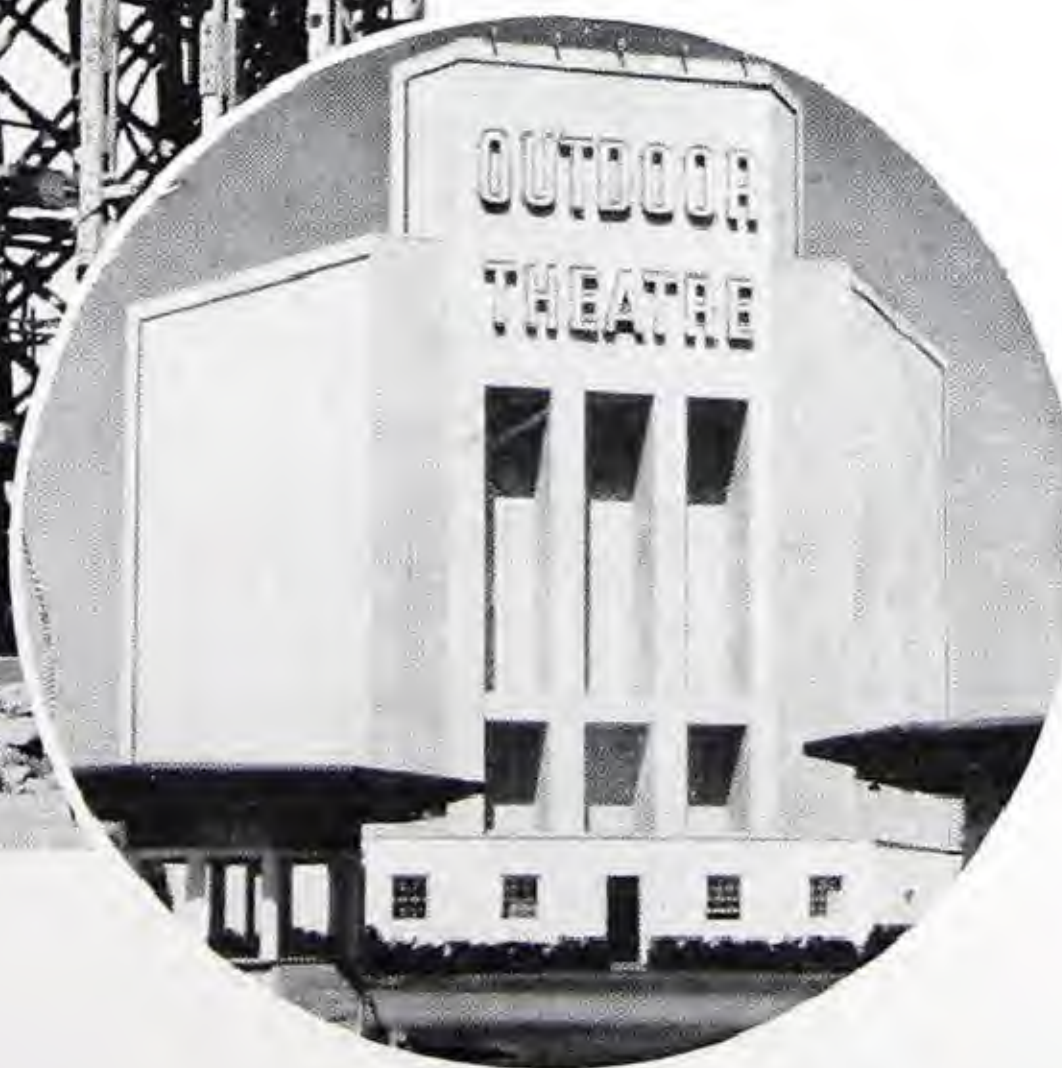
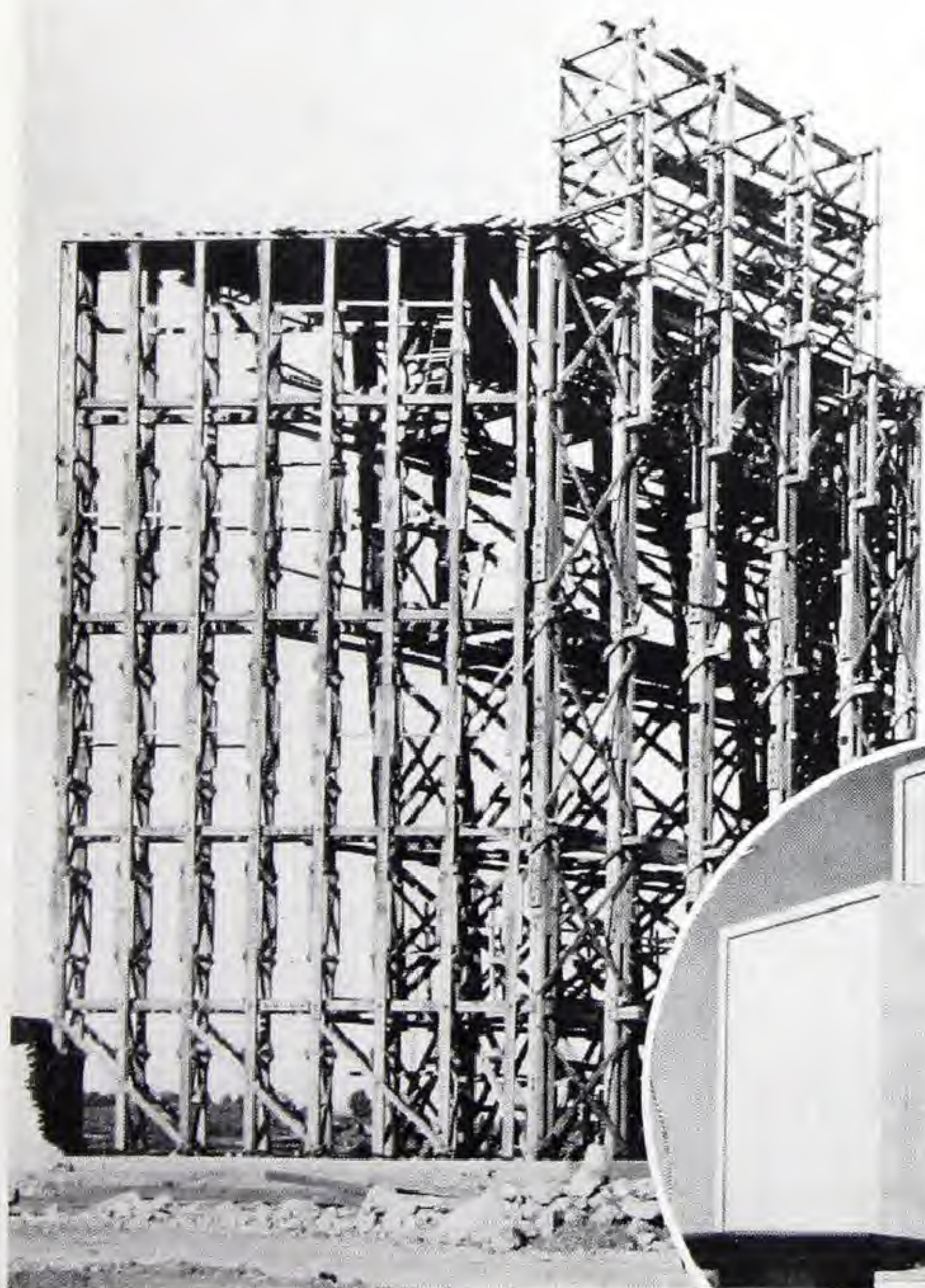


Amusement Places . . .

Sandia Amusements Inc. Joy Grear Corp., Albuquerque, N. M. Lamella roof construction 90' x 124', designed and fabricated by Summerbell Roof Structures, Los Angeles, Calif.



David Sternberg Skating Rink, York, Pa. Glued, laminated arches designed and fabricated by Rilco Laminated Products Inc., Wilkes-Barre, Pa.



75' Supporting Framework for Open-Air Motion Picture screen in Chicago. All joints framed with Teco Split Rings.

Attractive facade of Chicago open-air theatre. Rear of this structure is used as screen. Supporting timber framework uses Teco Split Rings at all joints. The framing was prefabricated at the job site by Morris Handler Co., general contractors; the architects were B. Leo Steif & Company and the structural engineer was Henry Miller, all of Chicago.



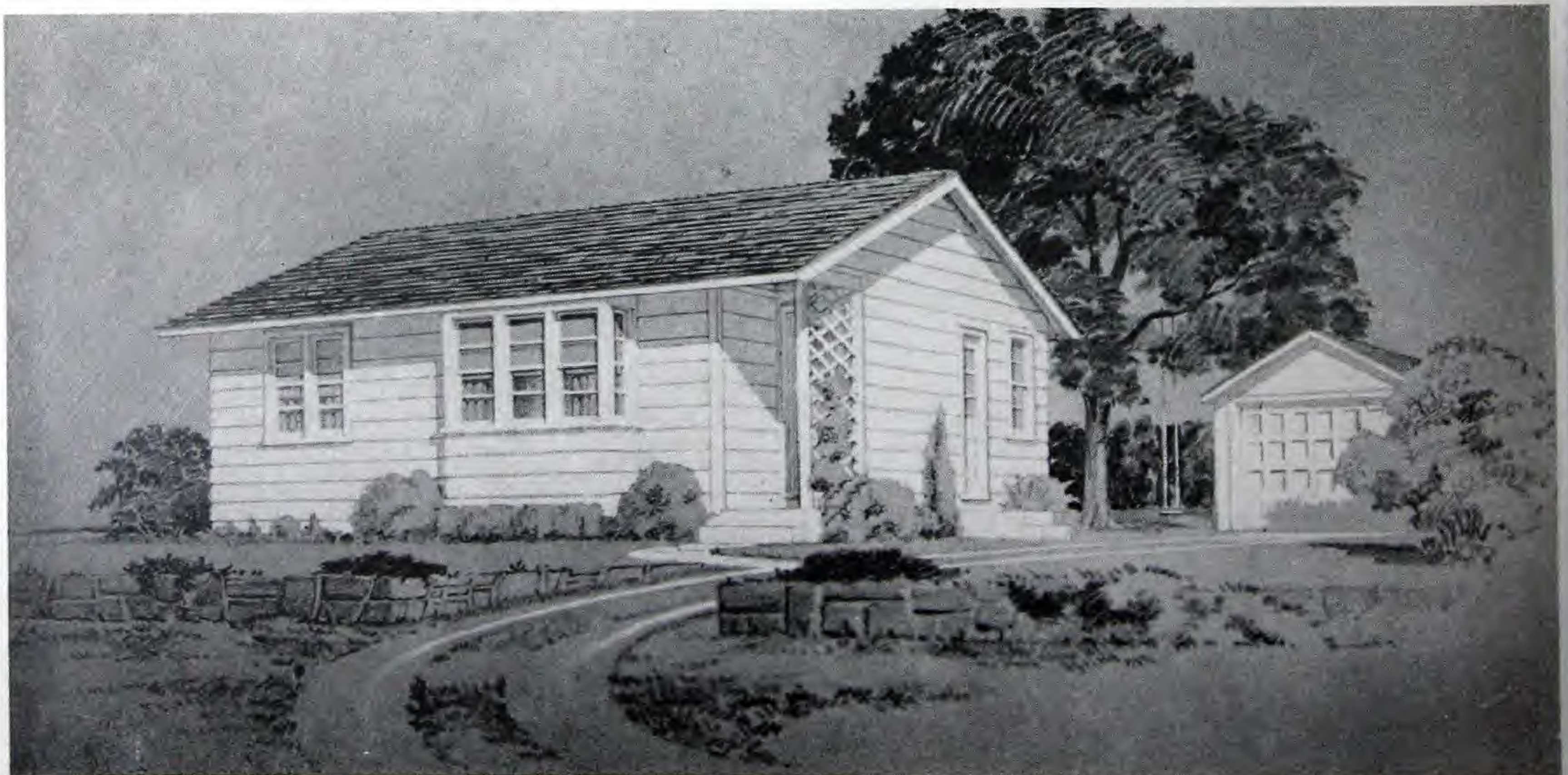
↑ Three bedroom Preenco home 28'8" x 40' planned so indoor and outdoor areas are coordinated. Note attractive multi-use carport that may also provide a covered area for outdoor living, for children's play on rainy days, for clothes drying, etc. Homes are produced by Prefabrication Engineering Company, Division of C. D. Johnson Lumber Corporation, Portland, Oregon.

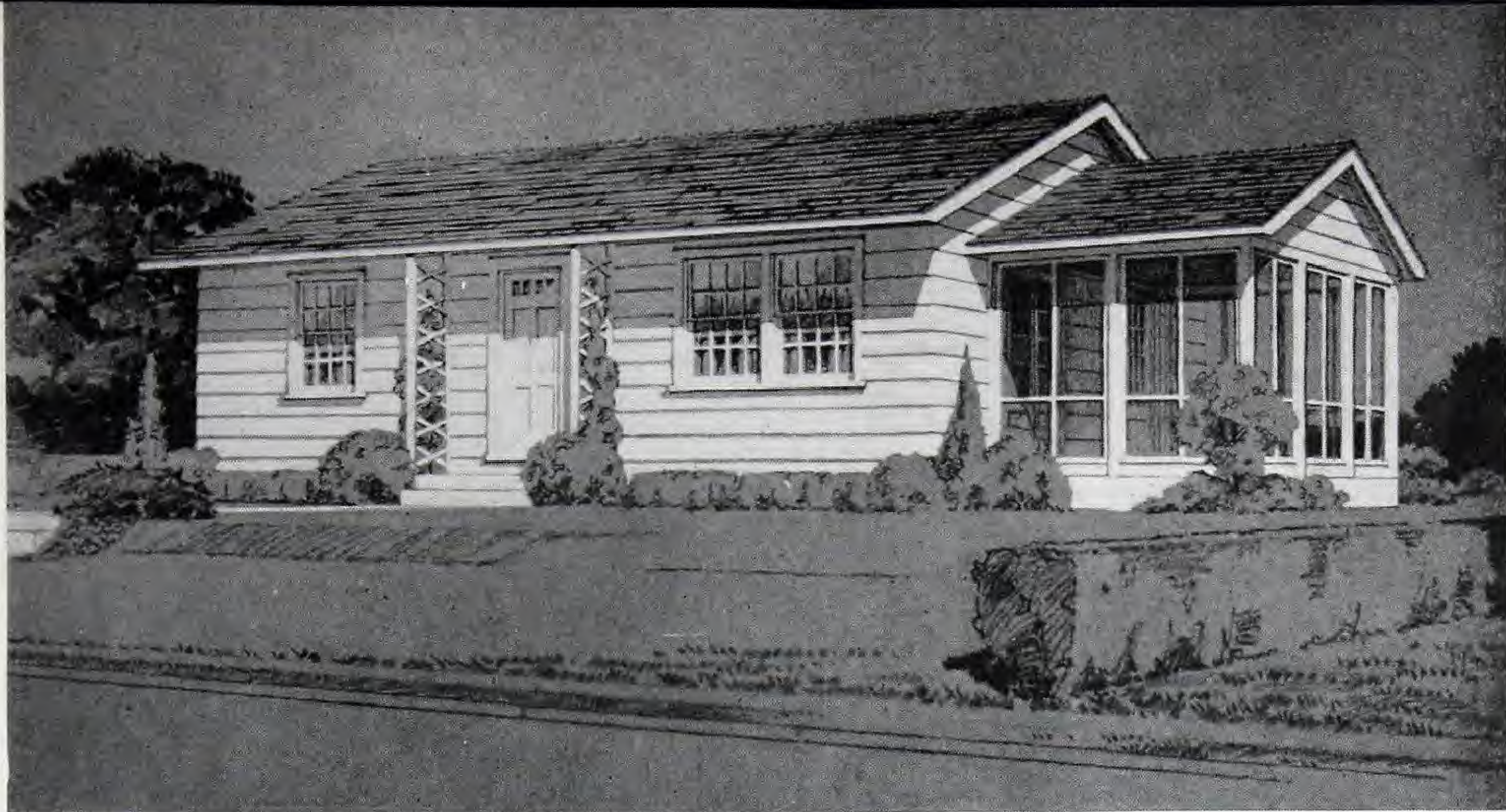
→ Prefabricated 4 room house produced by Crawford Company, Baton Rouge, La., member of Prefabricated Home Manufacturers Institute. Houses marketed nationally through distributor-erector outlets. Company has three basic house plans with various elevations and three garage plans.

↓ "Laurel Homes", prefabricated house, 24 feet by 32 feet, manufactured by the Green Lumber Company, of Laurel, Miss., contains two bedrooms, living room, kitchen, dinette and bath.



Homes...

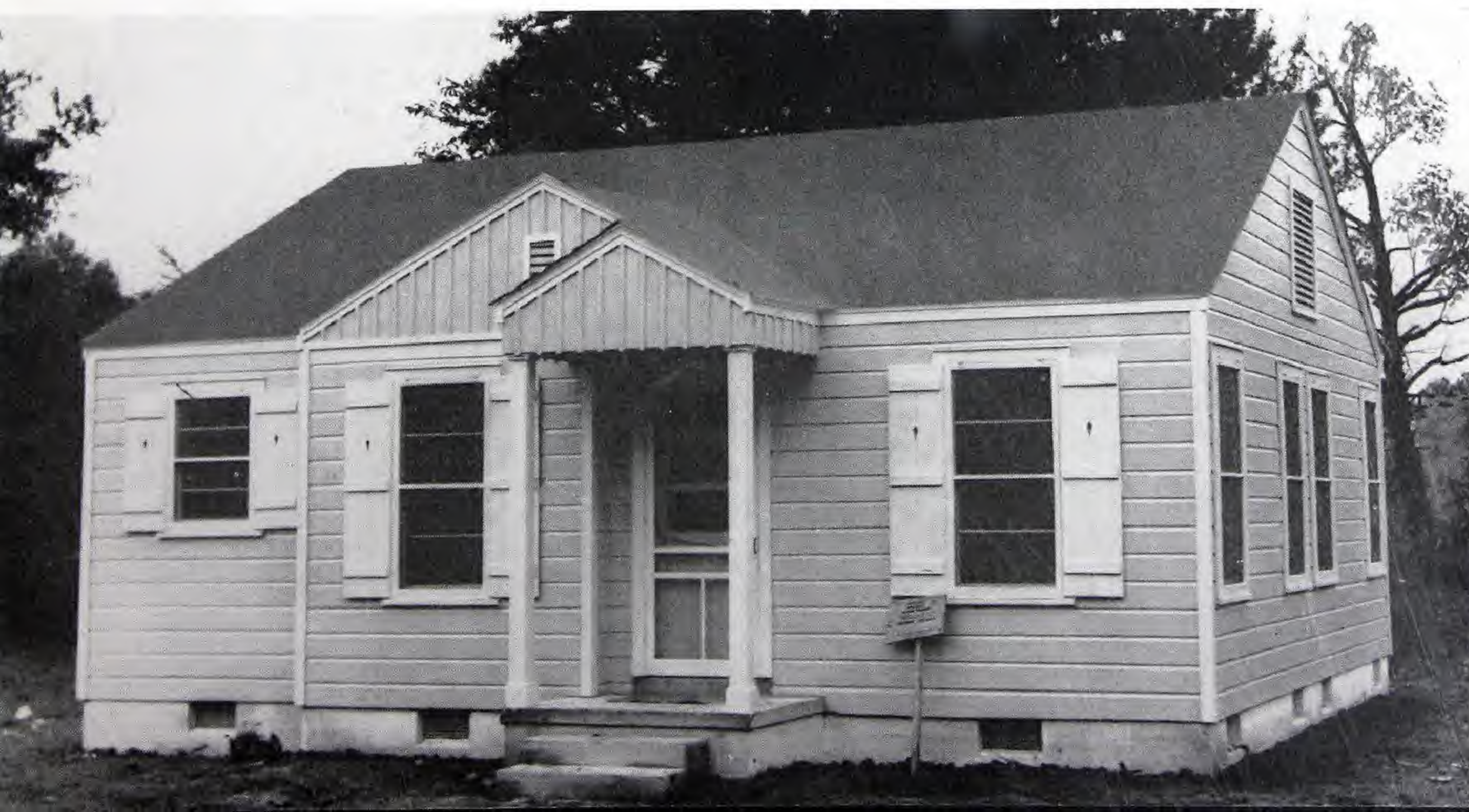




↑ "Laurel Homes", prefabricated five room house, 24 feet by 36 feet, is produced by the Green Lumber Company, Laurel, Miss., a member of the Prefabricated Home Manufacturers Institute. Other homes offered by this company include a six-room house, forty feet in length, with standard additions for screened porch and laundry, or carport and laundry.

← Two bedrooms, kitchen, bath and combination living-dining room with total of approximately 800 square feet of floor area. Homes can be finished with any desired type of wood siding. Floors are oak with pine sub-floor. Houses are furnished complete with plumbing, wiring, kitchen cabinets, etc., by Houston Ready Cut House Company, Houston, Texas.

↓ Prefabricated 30' x 25' five room house using Teeco trussed rafters produced by E. L. Howell, Greenwood, Miss. Construction is conventional wood frame with approximately 50% of the work done in the shop before delivery to building site.

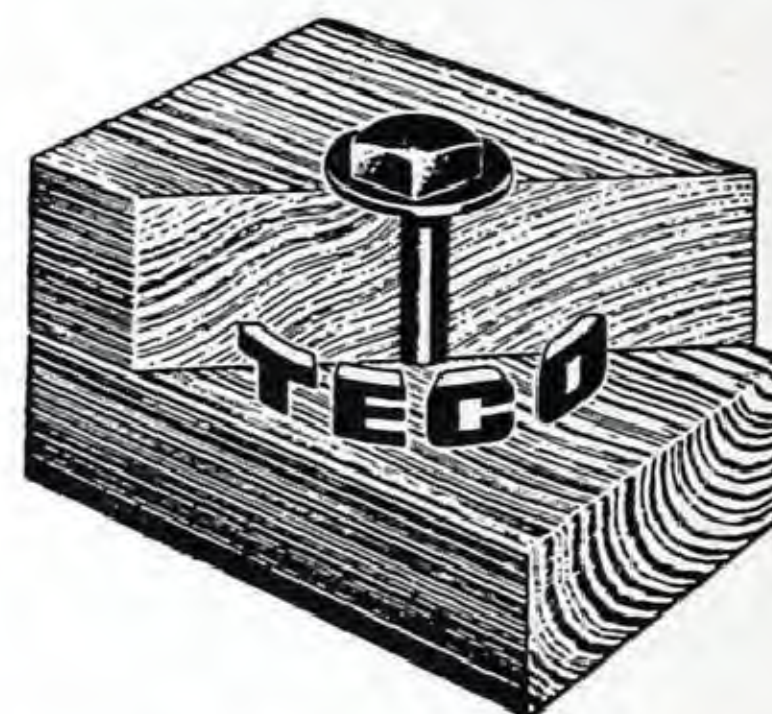


Homes . . .

with Teco Trussed Rafter

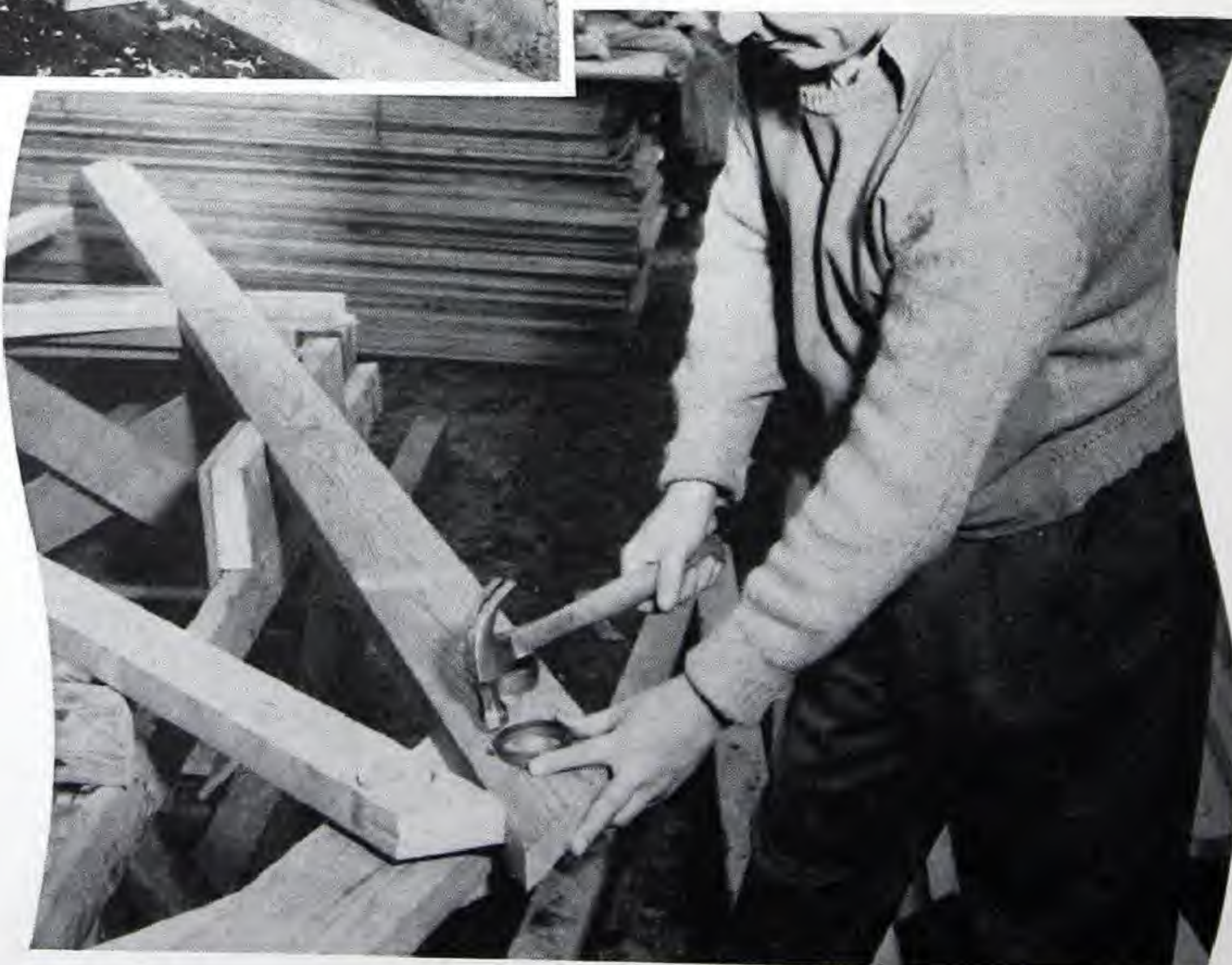
A new structural roof and ceiling framing system designed with Teco connectors is illustrated here step by step.

Cut-off saw operation. Teco trussed rafter members cut to exact length before grooving for Teco split ring.



Grooving rafter member with portable electric drill for Teco 2½" split ring.

Installing Teco 2½" split ring in 24' span rafter. Over 1,700 small homes have been built in recent months with this economical new method.





Assembling Teco trussed rafter. Simple assembly jig can be hauled from central location to another for quick assembly.

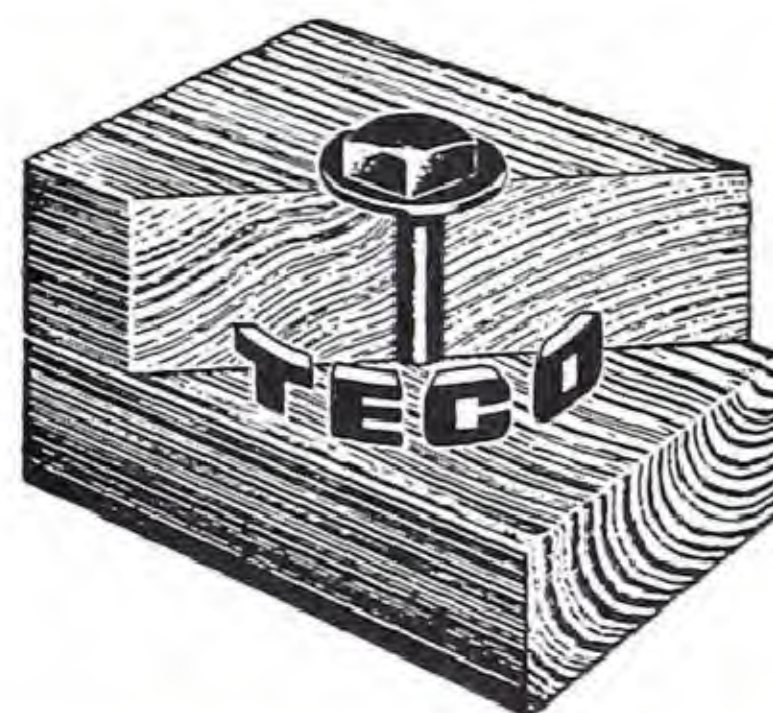


Homes . . .
Teco Trussed Rafters for low cost homes, multiple dwellings, garden type apartments, prefabricated houses, commercial and industrial buildings.



Roof sheathing being installed. Gable ends are built into sidewalls with Teco rafters spanning from wall to wall.

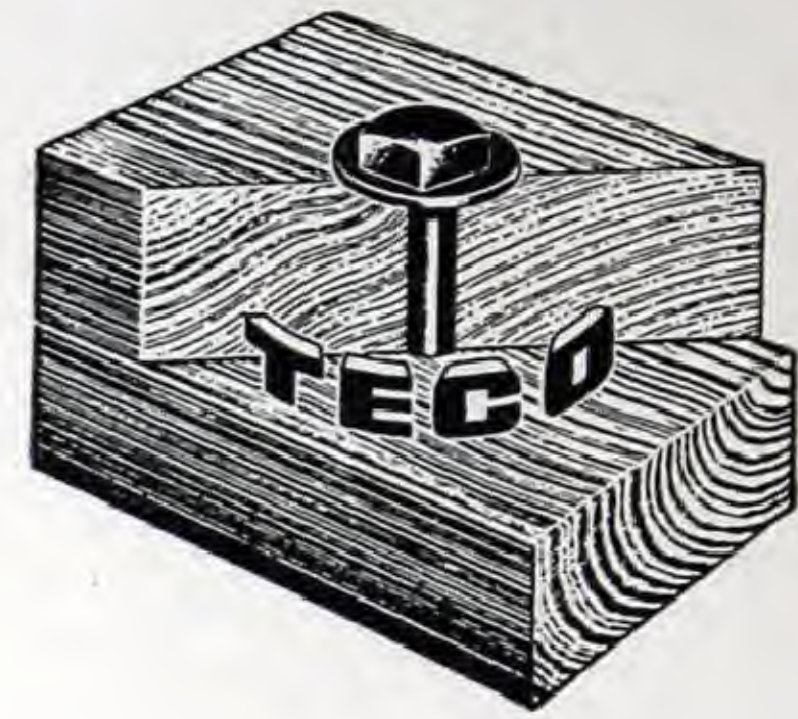
Assembled Teco rafters stock piled for quick erection. Two men assemble 12 rafters per hour.



Five room house 24' x 30' with 14 Teco rafters forming structural roof. Interior partitions carry no load, thus giving wide range of interior layouts.

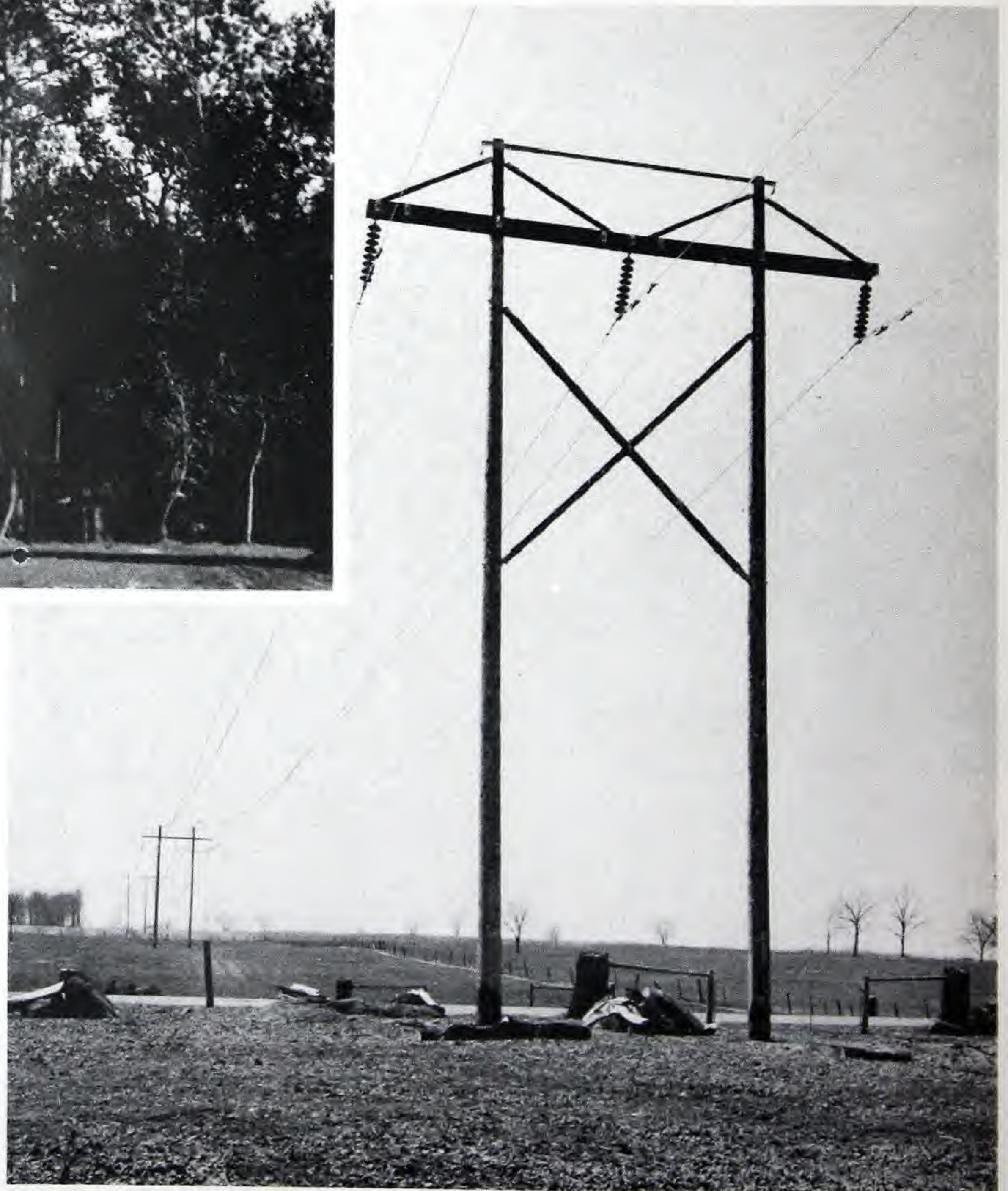


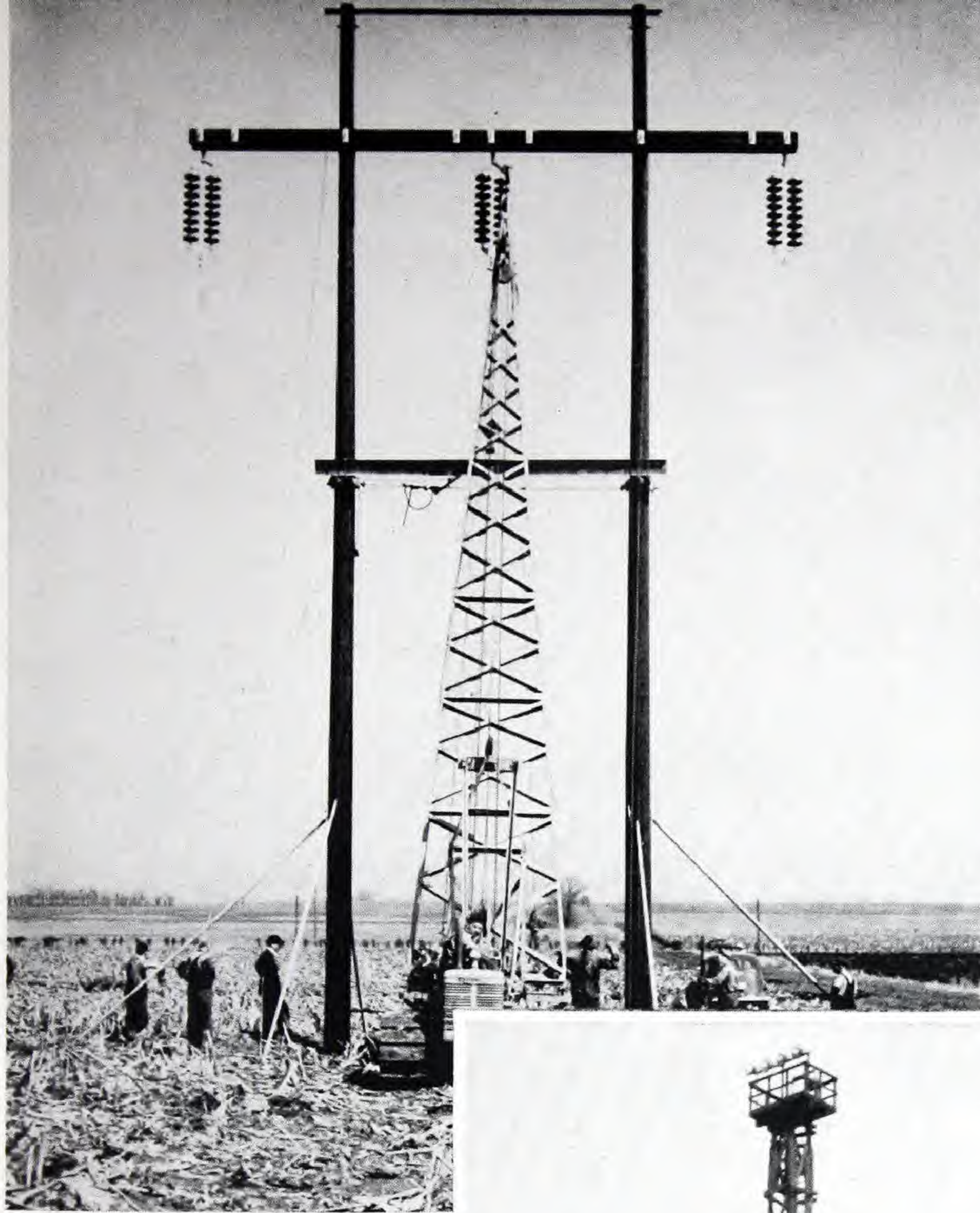
Towers . . .



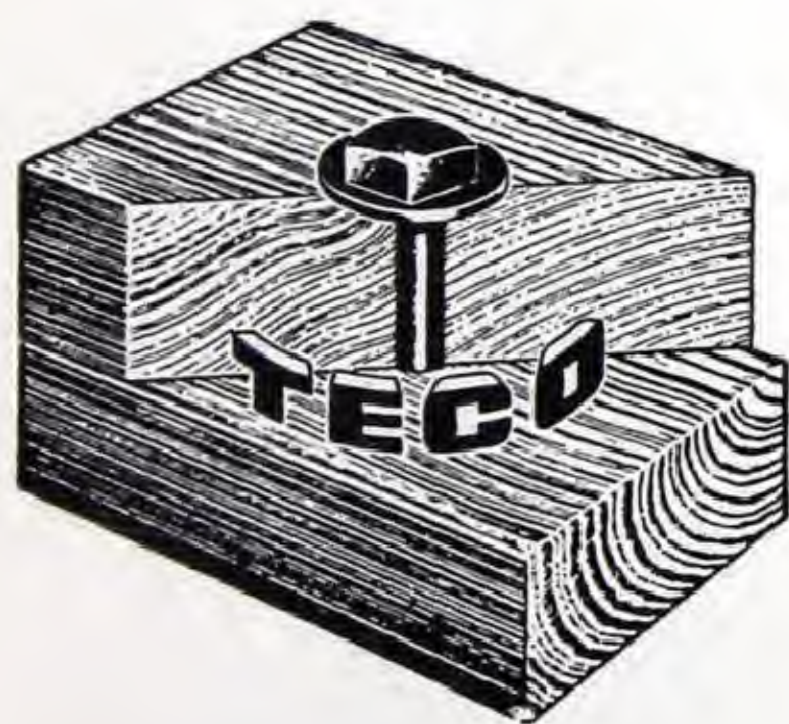
Pressure creosoted Teco connectored lookout tower in Southwest Texas. Timber treated by Wood Preserving Division, Koppers Company, Inc., Pittsburgh.

A 140,000 volt wood transmission power line in Michigan using Teco connectors. Truss arms are double plank. All material furnished by Joslyn Mfg. and Supply Company, Chicago.





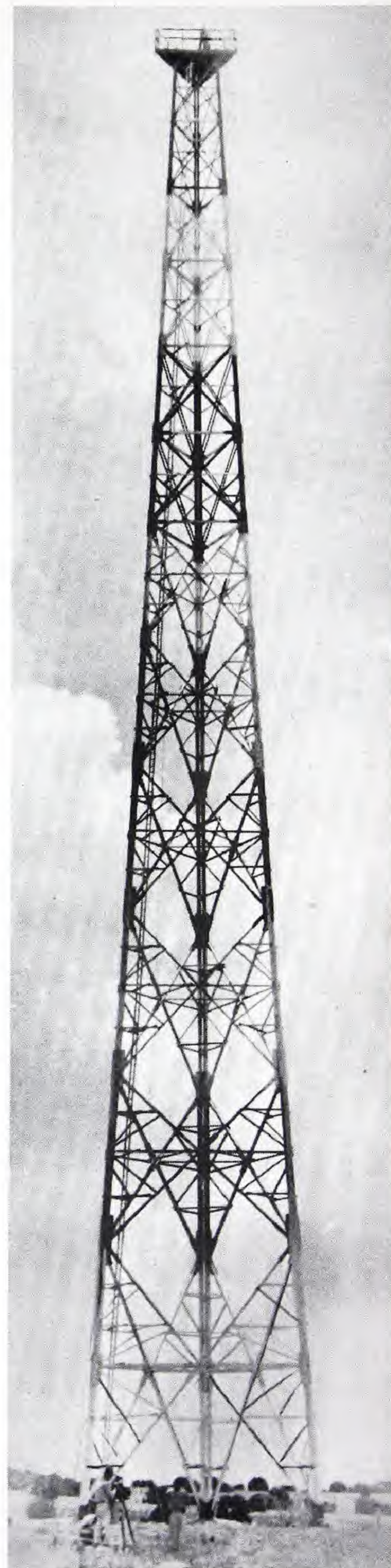
Erecting a 132,000 volt wood transmission power structure in Illinois, using Teco split rings. All materials furnished by Joslyn Mfg. and Supply Co., Chicago.



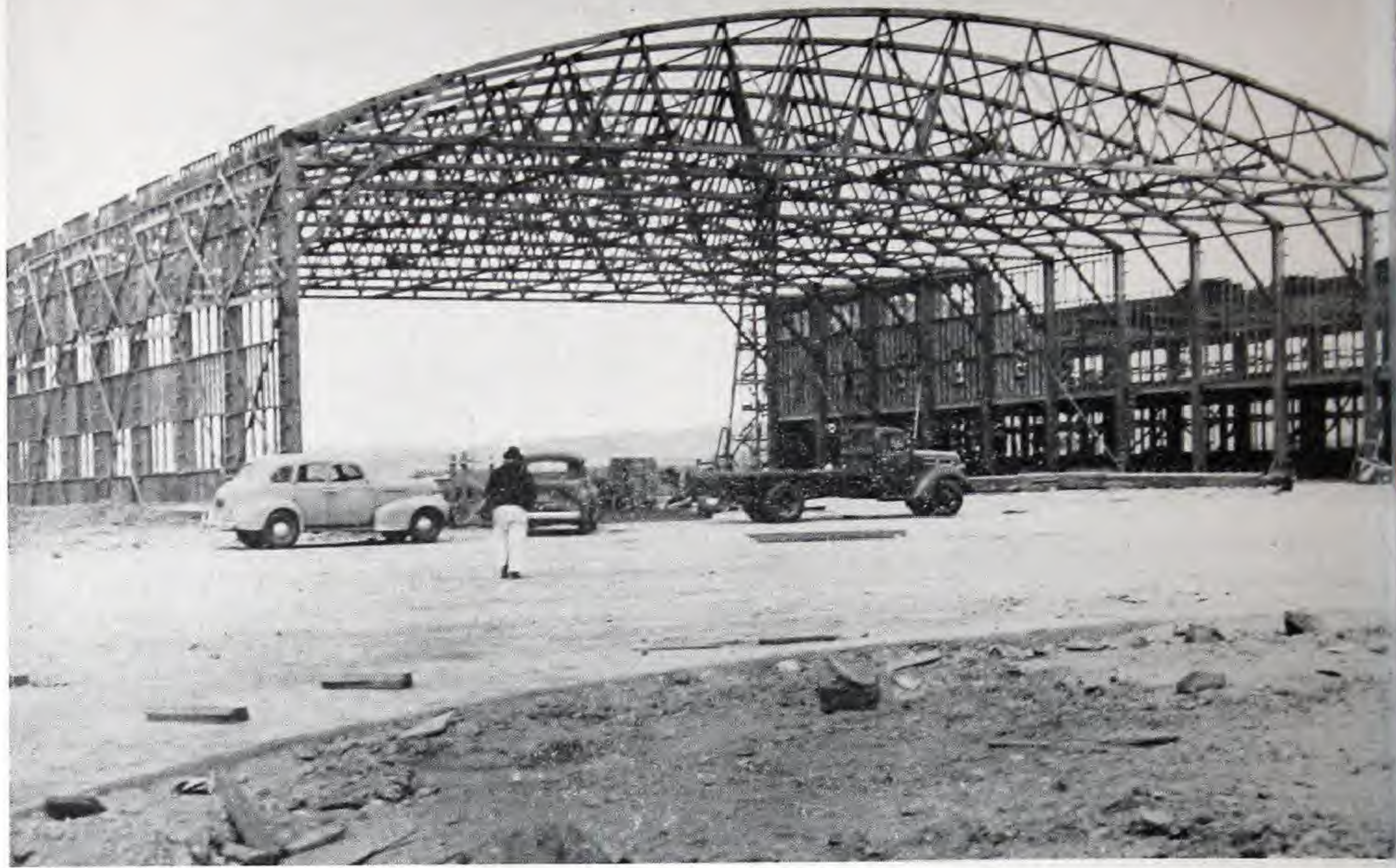
Creosote pressure treated timber flood light tower using Teco joint connectors built by Western Maryland Railroad at Hagerstown, Md. Timber was treated by Wood Preserving Division, Koppers Company Inc., Pittsburgh.



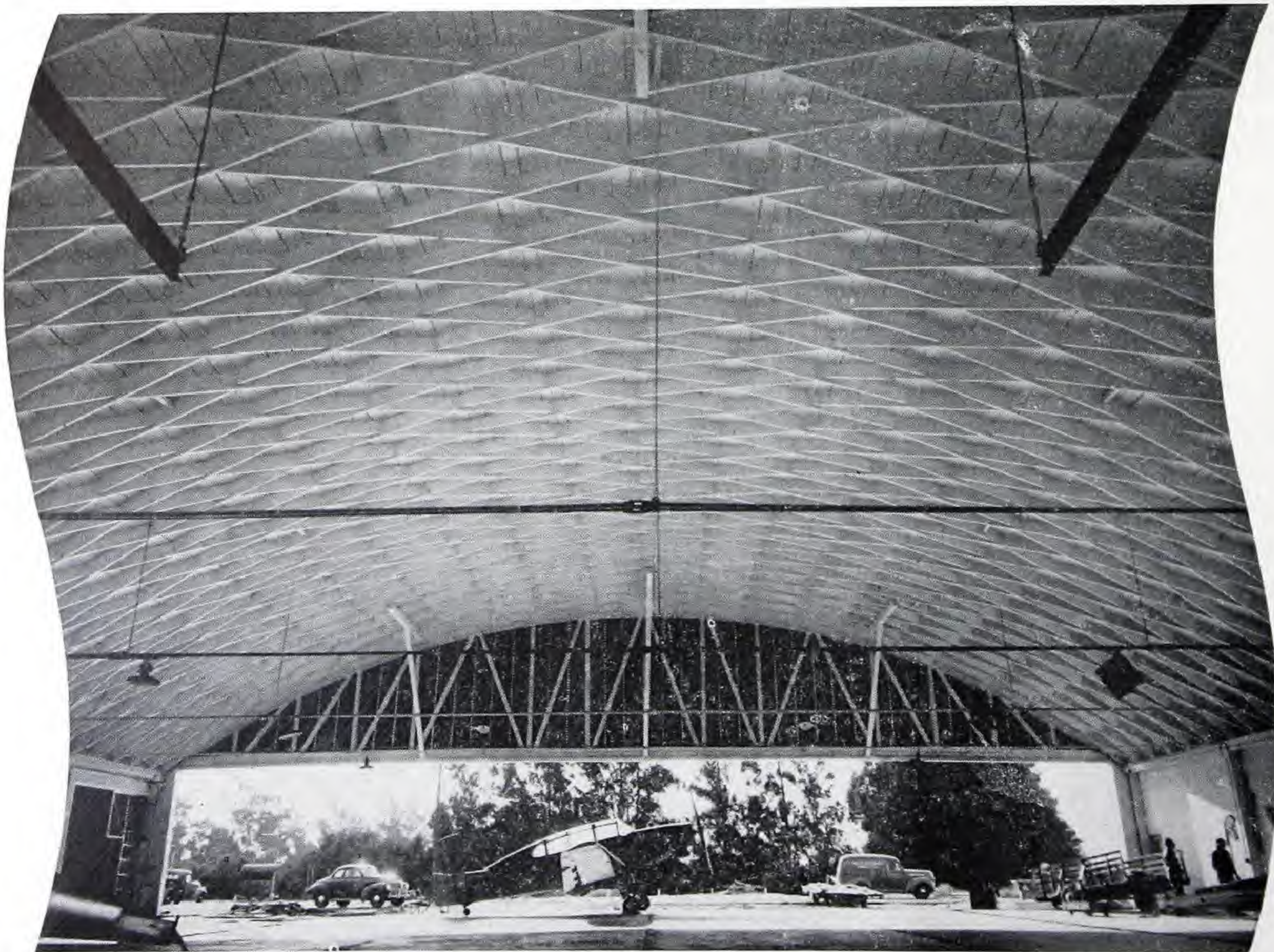
Free standing 250 foot triangular wood tower using Teco connectors. Fabricated and erected by Cartwright and Morrison, Holcomb, N. Y.



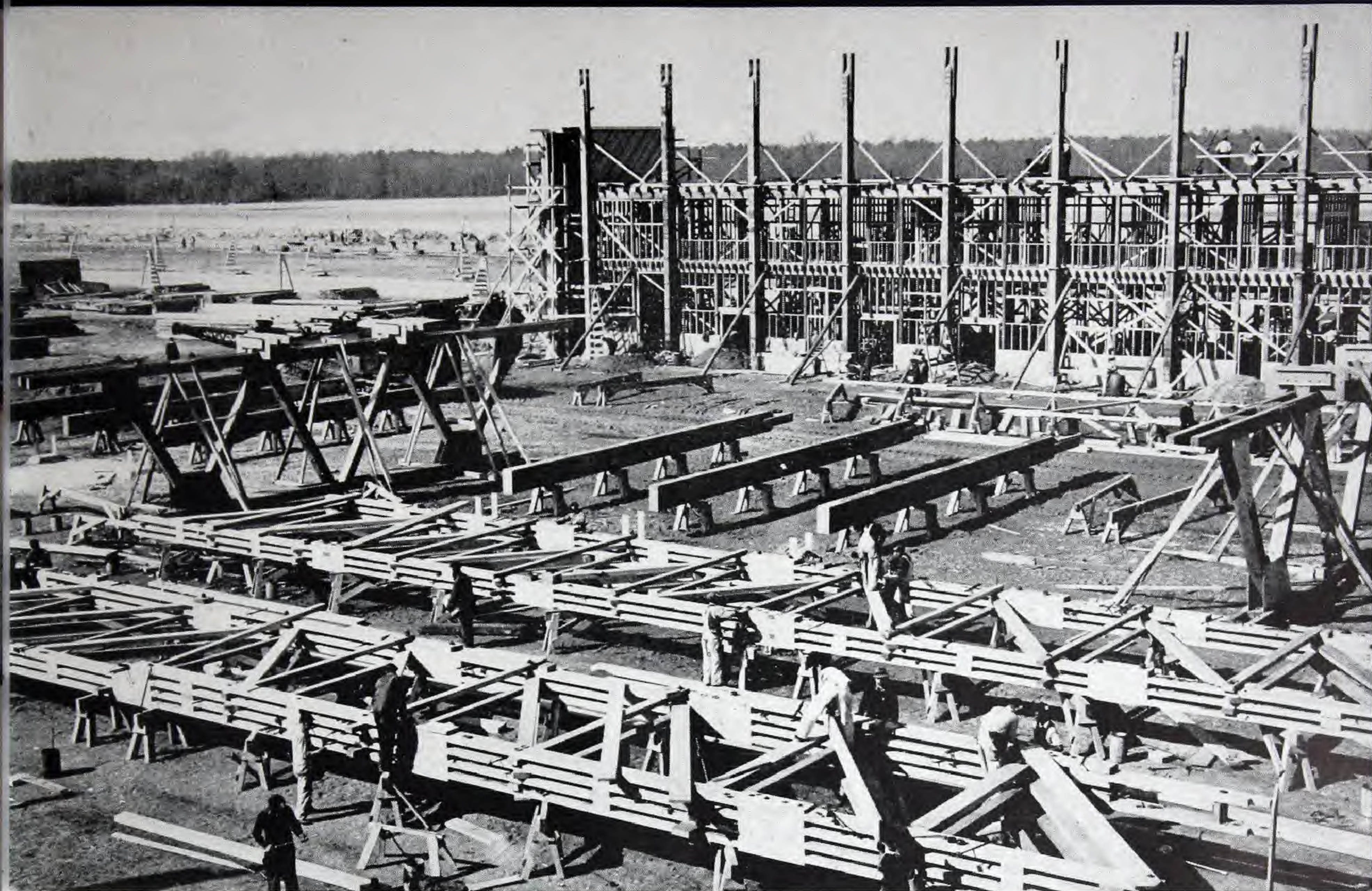
Army hangar using 165' clear span, glued, laminated chords, webs and columns with Teco connectors. Design and fabrication by Summerbell Roof Structures, Oakland, Calif.



Hangars...



Valley Air Service hangar 100' x 100', Carlton, Calif., using Lamella roof construction. Designed and fabricated by Summerbell Roof Structures, Los Angeles, Calif. Photo by Lamar and Gray.



General view of Navy hangar under construction on Jersey Coast using two spans each of 120' trusses built with Teco connectors. Fabricated by Weyerhaeuser Timber Company, Newark, N. J.

Shop hangar 90' x 100', Miami, Florida. Designed, fabricated and erected by Timber Fabrications, Miami.

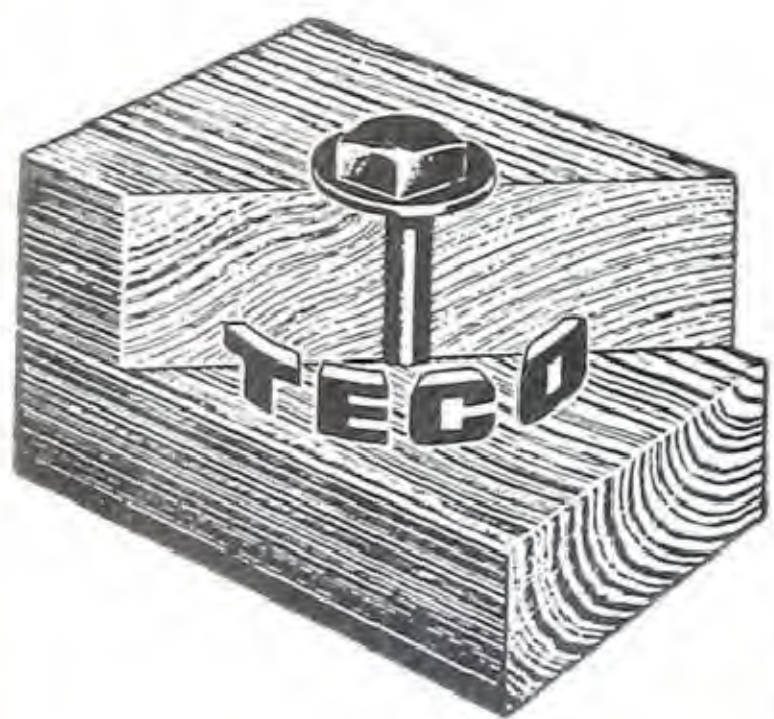
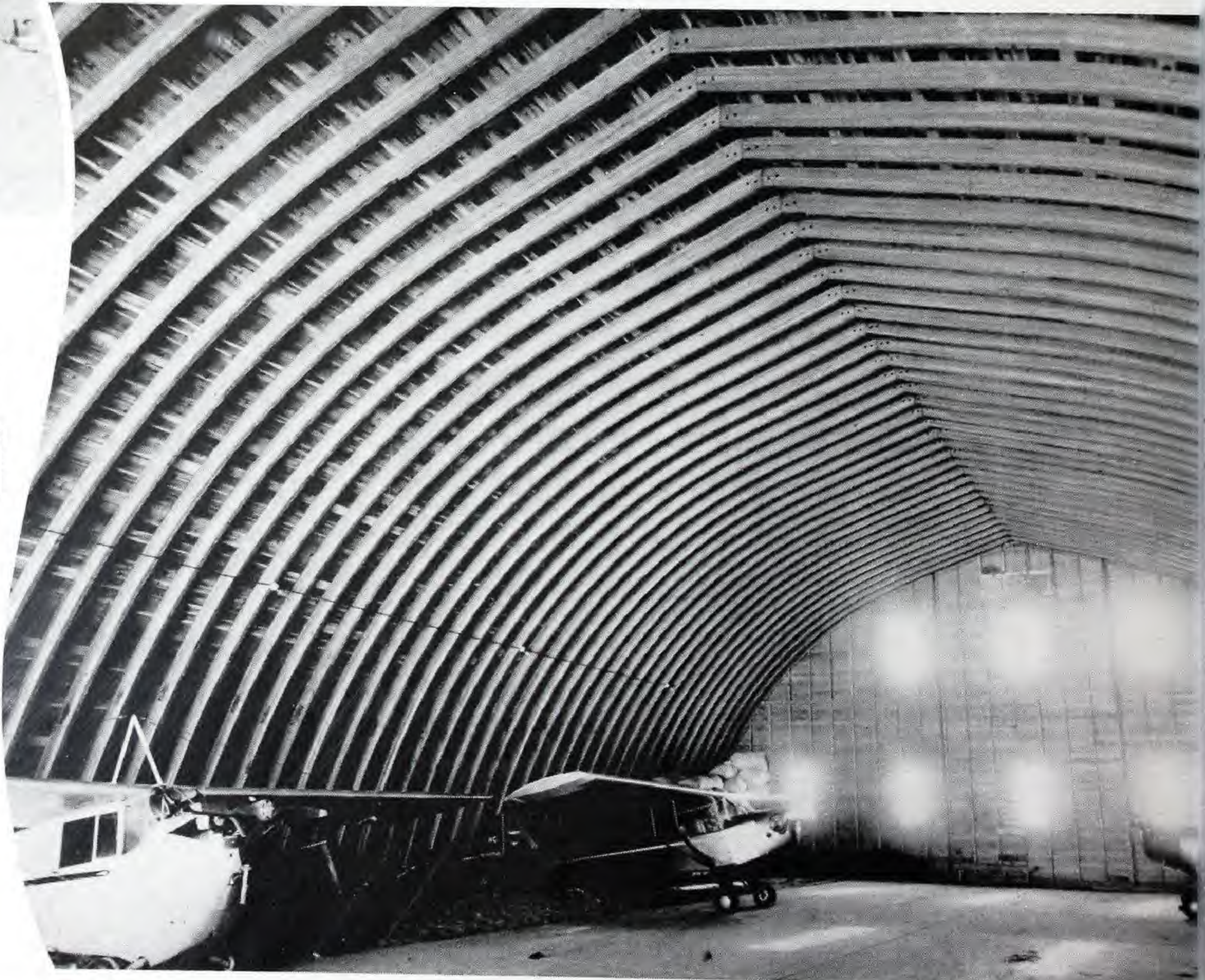


Hangars . . .



Interior view plane storage hangar, Yankton, S. D., using 80' glued, laminated arches, manufactured by Rilco Laminated Products, Inc., St. Paul, Minn.

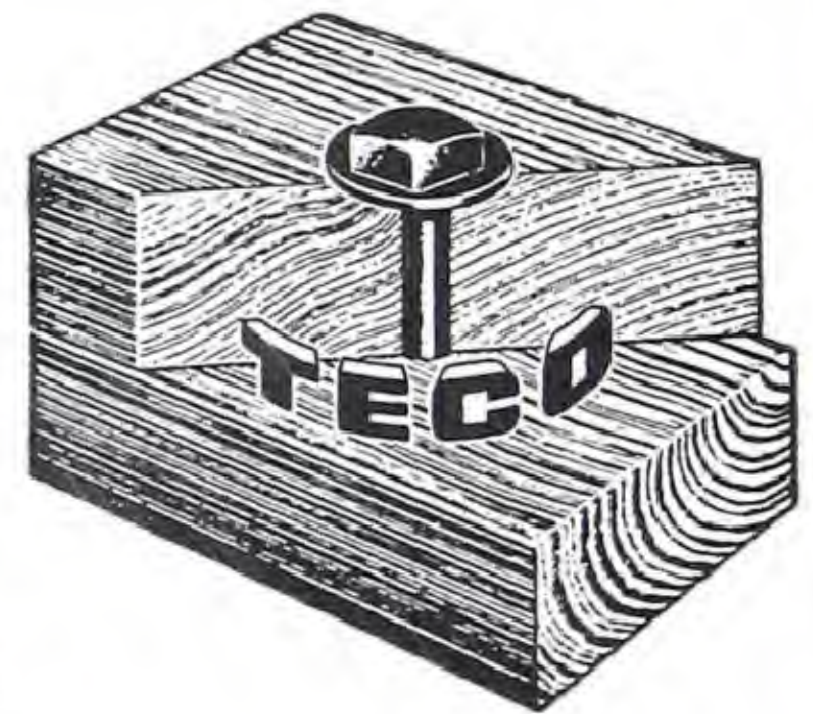
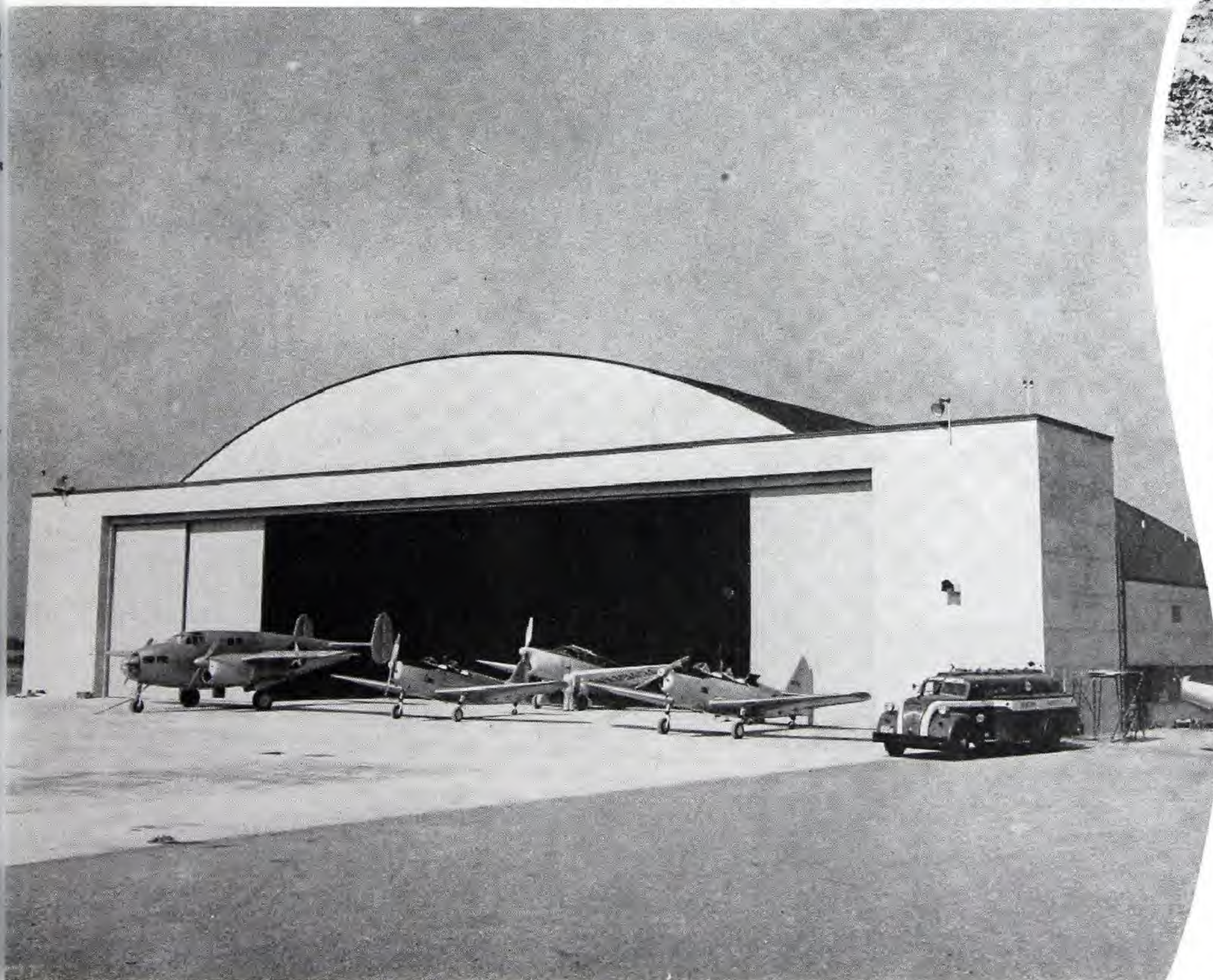
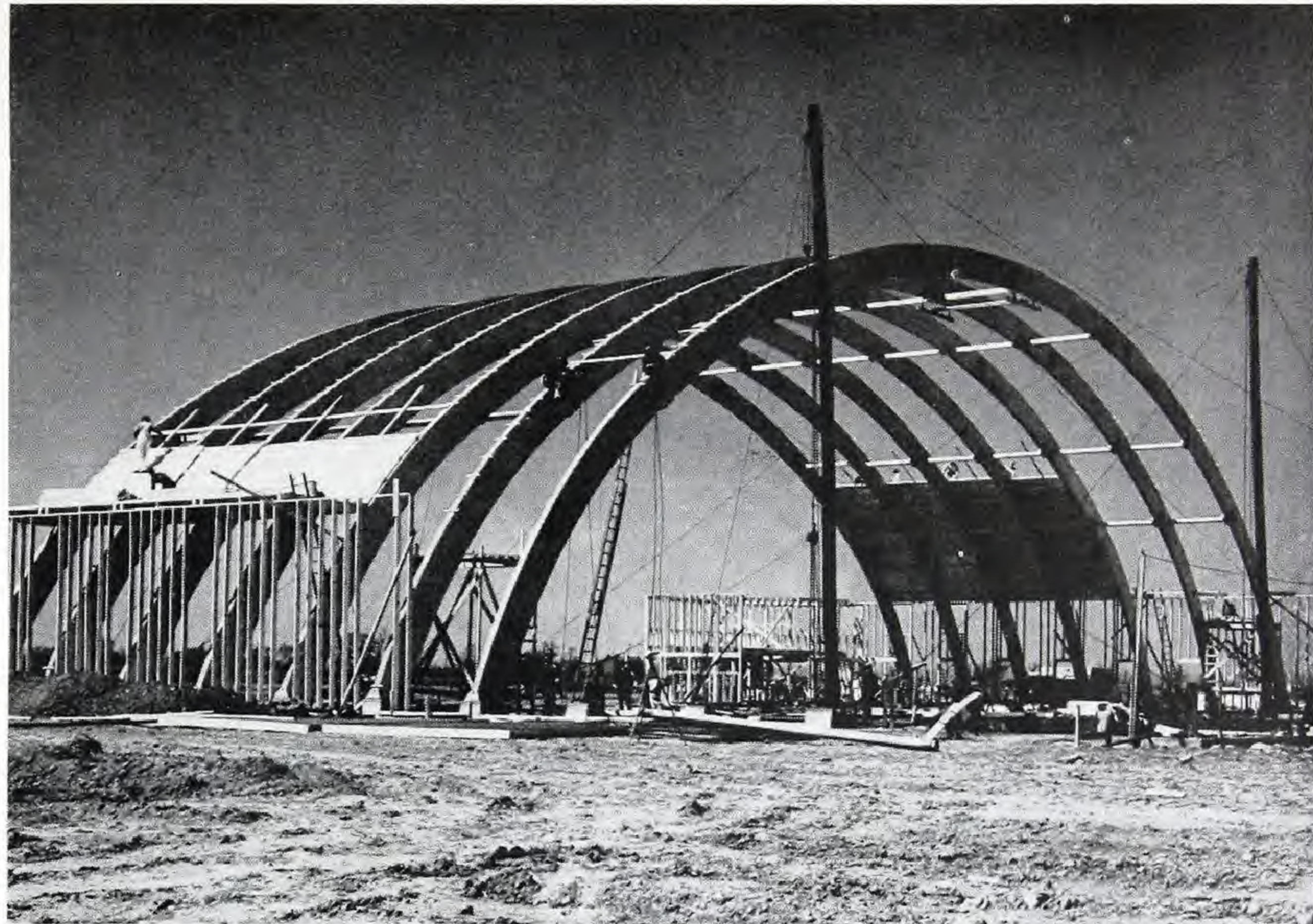
Interior view Jamestown, N. D., hangar, using 65' glued, laminated arches, manufactured by Rilco Laminated Products, Inc., St. Paul, Minn.



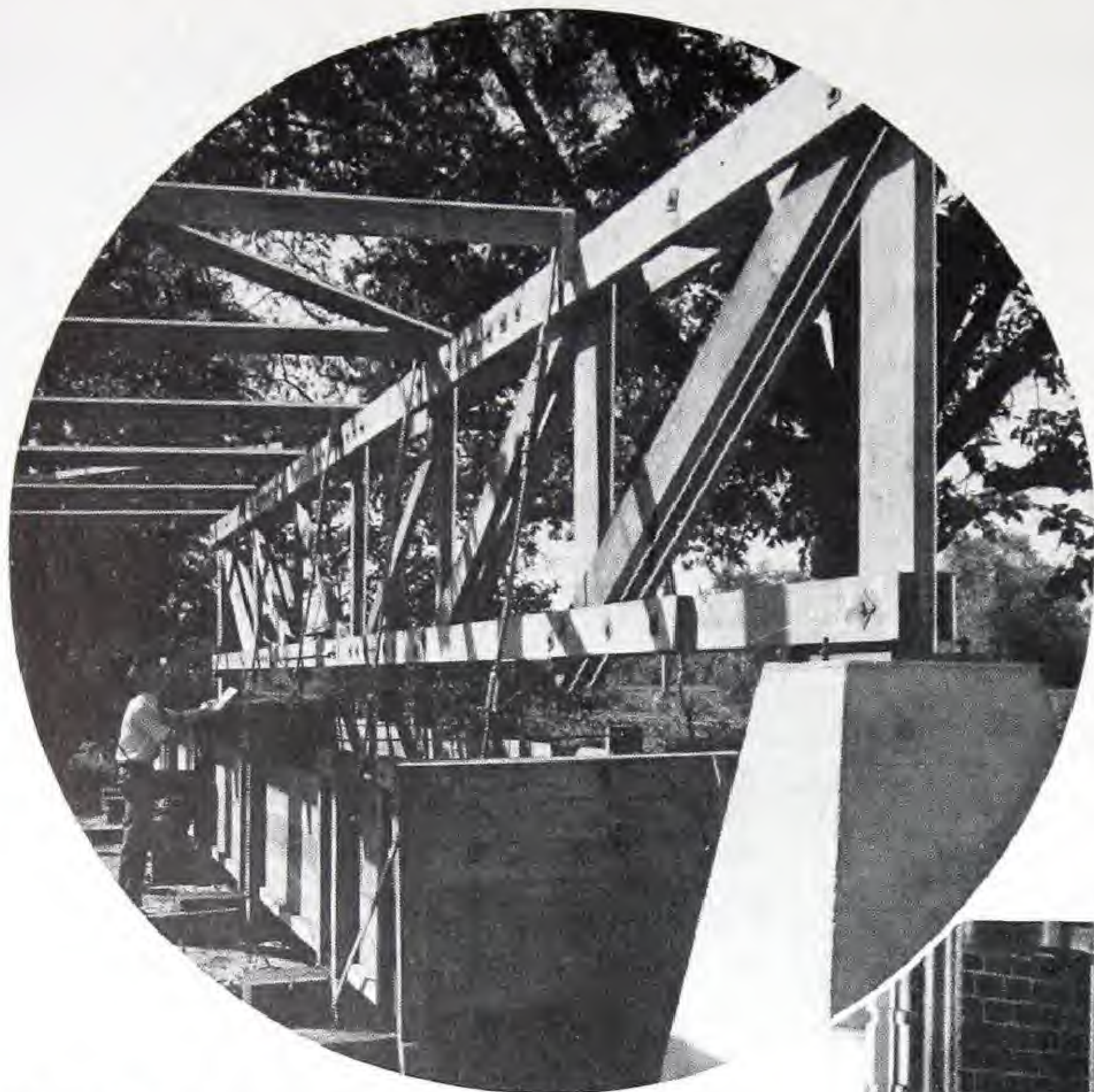
Hangars . . .

Hangar for Fairchild Engines and Airplanes Corp., Hagerstown, Md., showing 170' unit glued, laminated arches in place. Arches designed and fabricated by Unit Structures, Inc., Peshtigo, Wisc.

Fairchild Engines and Airplane Corp., Hagerstown, Md., hangar 170' x 120'. Capacity 35 Fairchild PT-19 trainers. Roof supported by 170' unit glued, laminated arches, designed and manufactured by Unit Structures, Inc., Peshtigo, Wisc.



Timber Engineering Company Wood Products

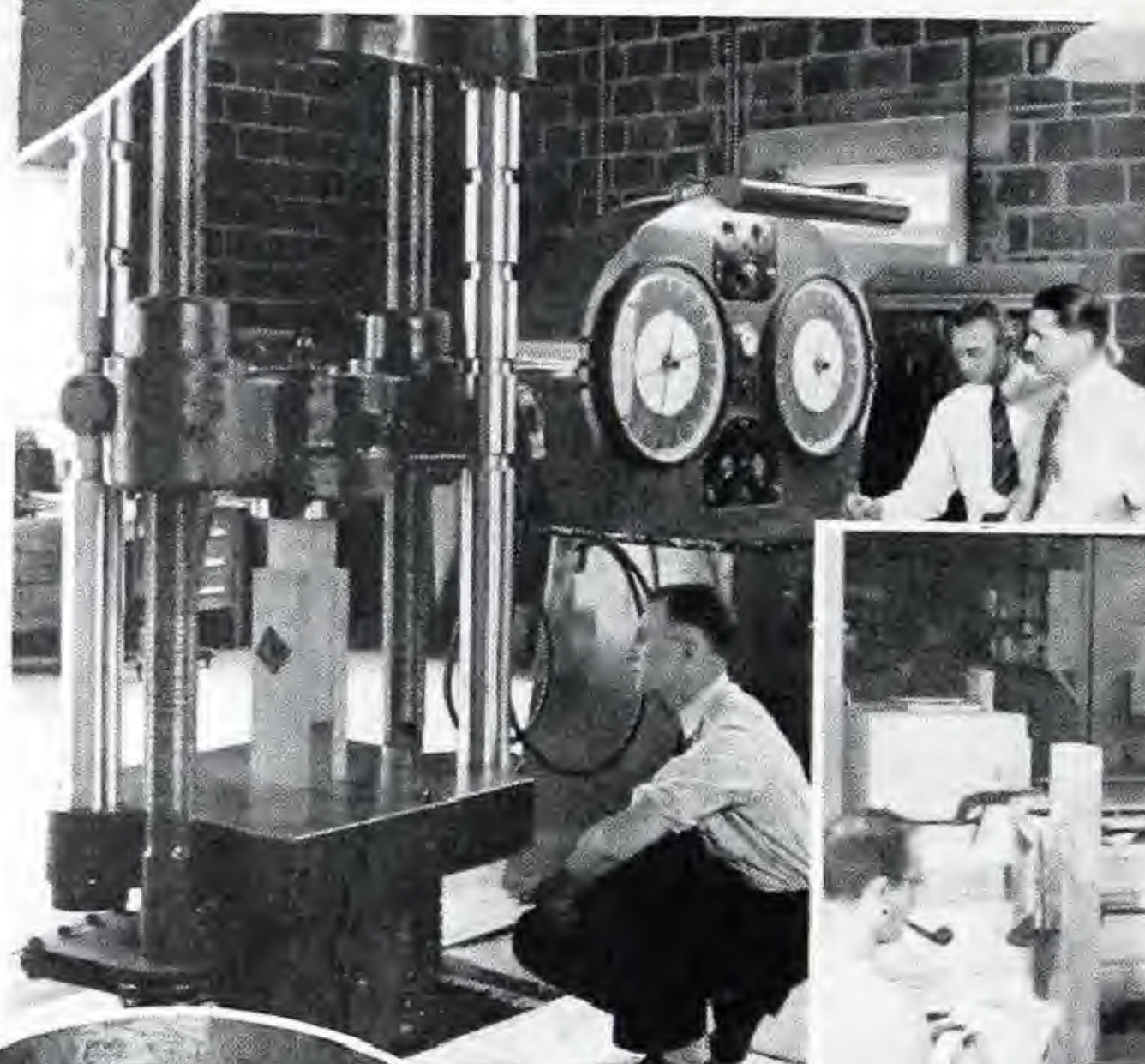


Testing a 50' Flat-Pratt truss in full scale testing rig at the Timber Engineering Company laboratory. This is the only rig for testing full scale timber trusses in the U. S.

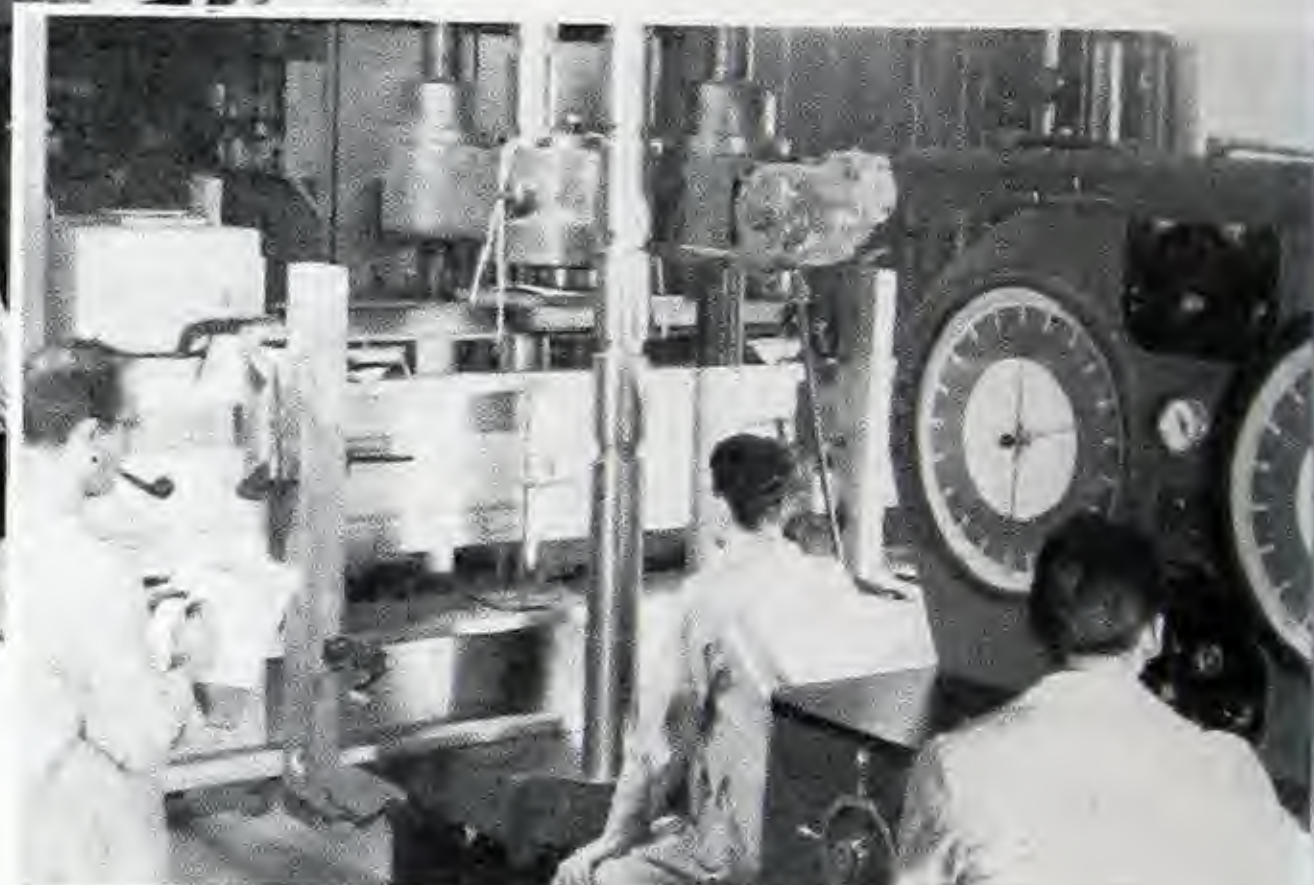
Boring the shaft hole in a laminated wallpaper roller blank.



Pinking—setting brass strips into the artist's drawing on laminated wood roller. Each roll prints only one color so several are needed for a complete pattern.

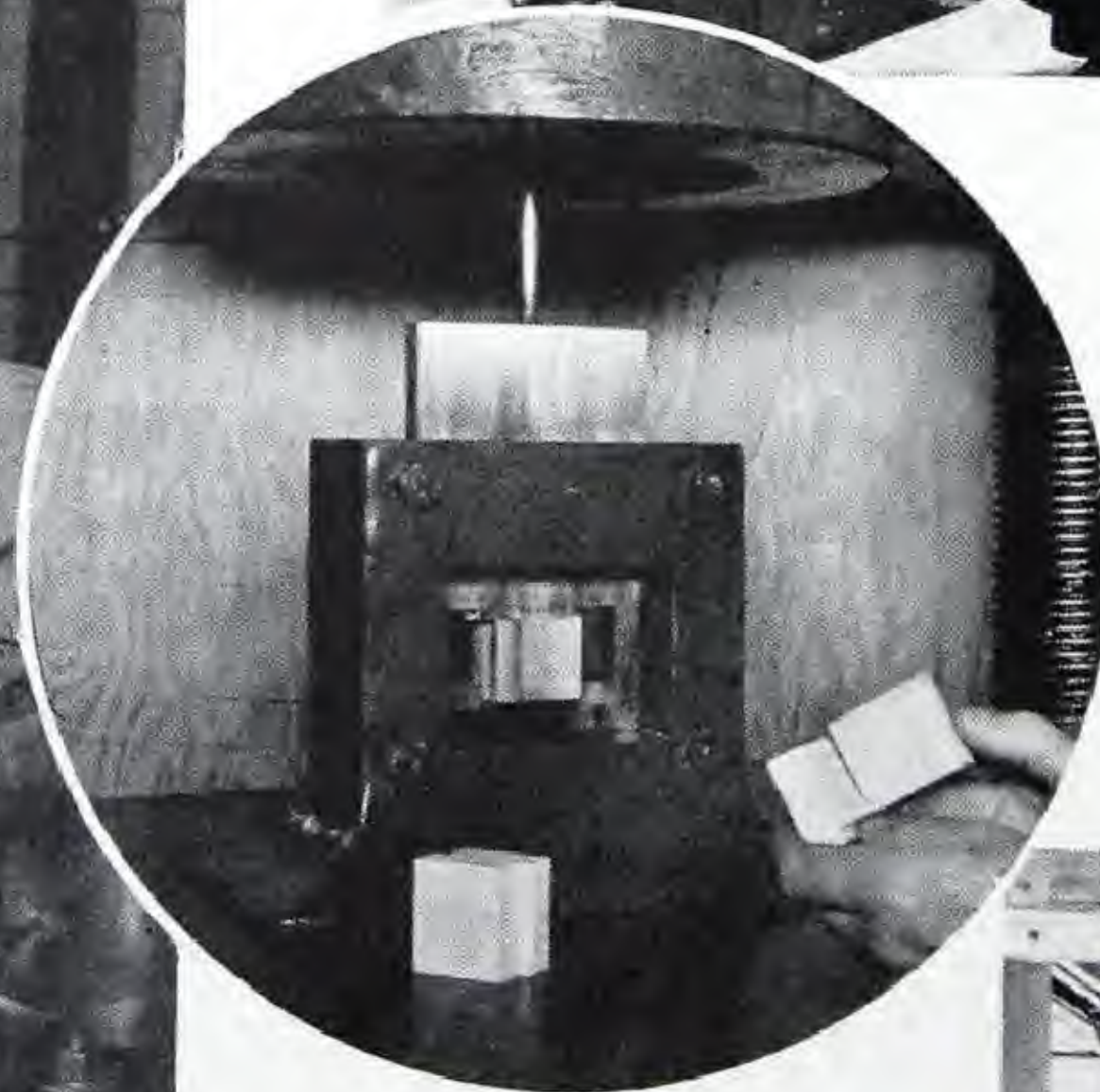


Testing a timber connector specimen in 200,000 pound testing machine. This apparatus will test with accuracy specimens ranging in size from match sticks to heavy roof trusses.

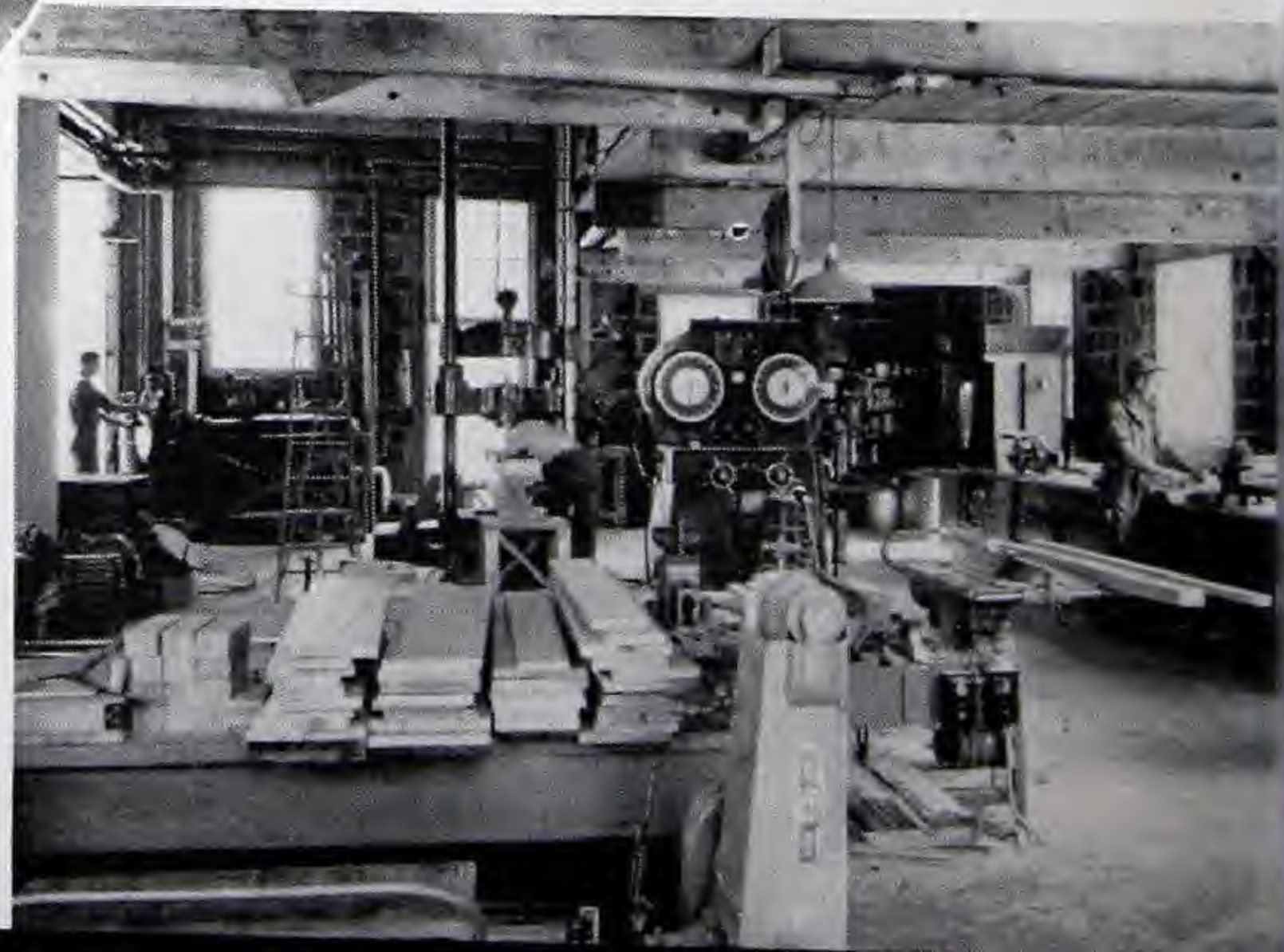


Determining the strength of a built-up wood girder. Proper design of these girders made possible their widespread use in prefabricated houses.

General view of the Wood Products Laboratory showing impregnation equipment, timber testing equipment and woodworking apparatus.



This apparatus and similar test blocks were used in determining the shear strength of the quick-setting glues after the glued up blocks have been in clamps only 10 minutes.



Development and Wood Chemistry Research Activities

OUR RESEARCH FACILITIES are helping both small and large companies in improving old products and developing new products. . . . We invite your inquiries.

One section of the TECO Chemistry Laboratory where new chemical products from wood, such as hardwood pulp, have their origin.



Products of hardwood pulp. Left to right in foreground; moulded pulp plate, sheet of pulp, lump of pulp, chips from which pulp is made, two sheets of wall-board type material. In the background is a molded pulp helmet.



The first desk with a cigarette burnproof top was exhibited in the fall of 1946 at the convention of the National Stationers Association by the Wood Office Furniture Institute. Built of matched veneer blond quartered walnut, the desk is four feet wide, eight feet long and adjustable in height from 28½" to 30". With overhanging conference top, gracefully curved it will nicely accommodate a conference of seven people. The pedestals are of pleasing, teardrop shape, fabricated from molded plywood. The desk is legless, resting on runners.

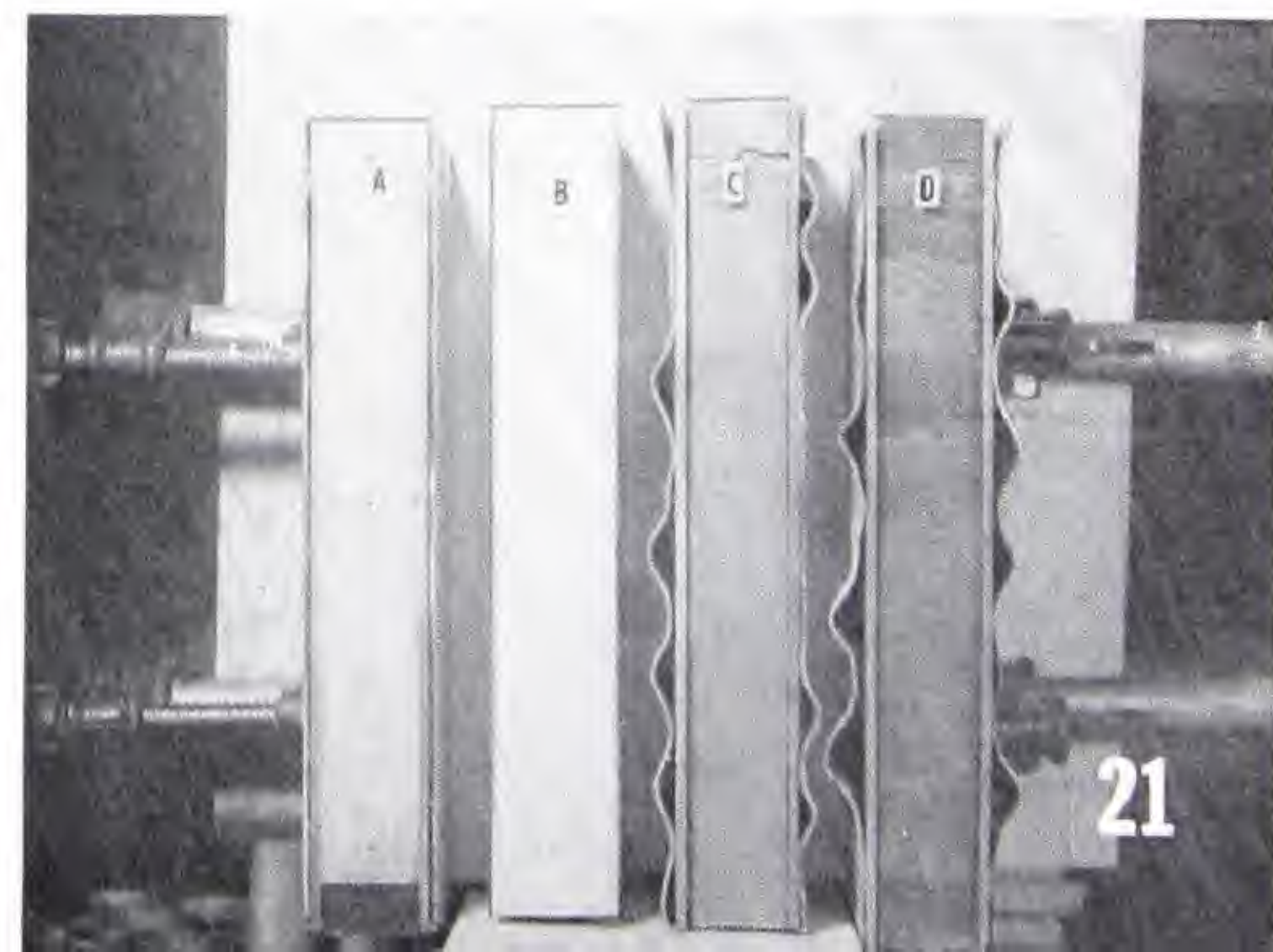
Four types of door construction after 7 days' soaking in water. A, is door with hardwood strip on bottom. B, exposed core has bottom edge coated with TECO water-proofing. C, also with exposed core, has bottom painted. D, edge of exposed core treated with a commercial water repellent.

Bent wooden parts, which have been subjected to high humidity to study their stability. Bend in foreground was phenol treated prior to bending. The next was impregnated with urea-formaldehyde while the flattest piece was an untreated control. Top piece of chair back illustrates one use of bent wood members.



Floor tiles made from sawdust are shown. (foreground) two tiles used for parquetry. Other is useable in buildings, housing, etc.

Useful for furniture tops, doors and floors, lightweight, strong plywood panel is ideal. Has corrugated veneer core and is easily made, using quick-setting glue. Has high bending strength.





Brunswig Drug Company building, Vernon, Calif., using 46' span glued, laminated arches produced by Summerbell Roof Structures, Los Angeles.

Warehouses . . .



Ashtabula Industrial Corp. warehouse, Ashtabula, Ohio. Arch., Merle Eddy. Cont., F. W. Gran. Teco connectors supplied by Timber Engineering Co. of Ohio, Cincinnati.



Warehouse Ward Distributing Company built with 75' bow-string trusses fabricated and erected by Timber Fabrications, Miami, Fla. Photo by BEW.



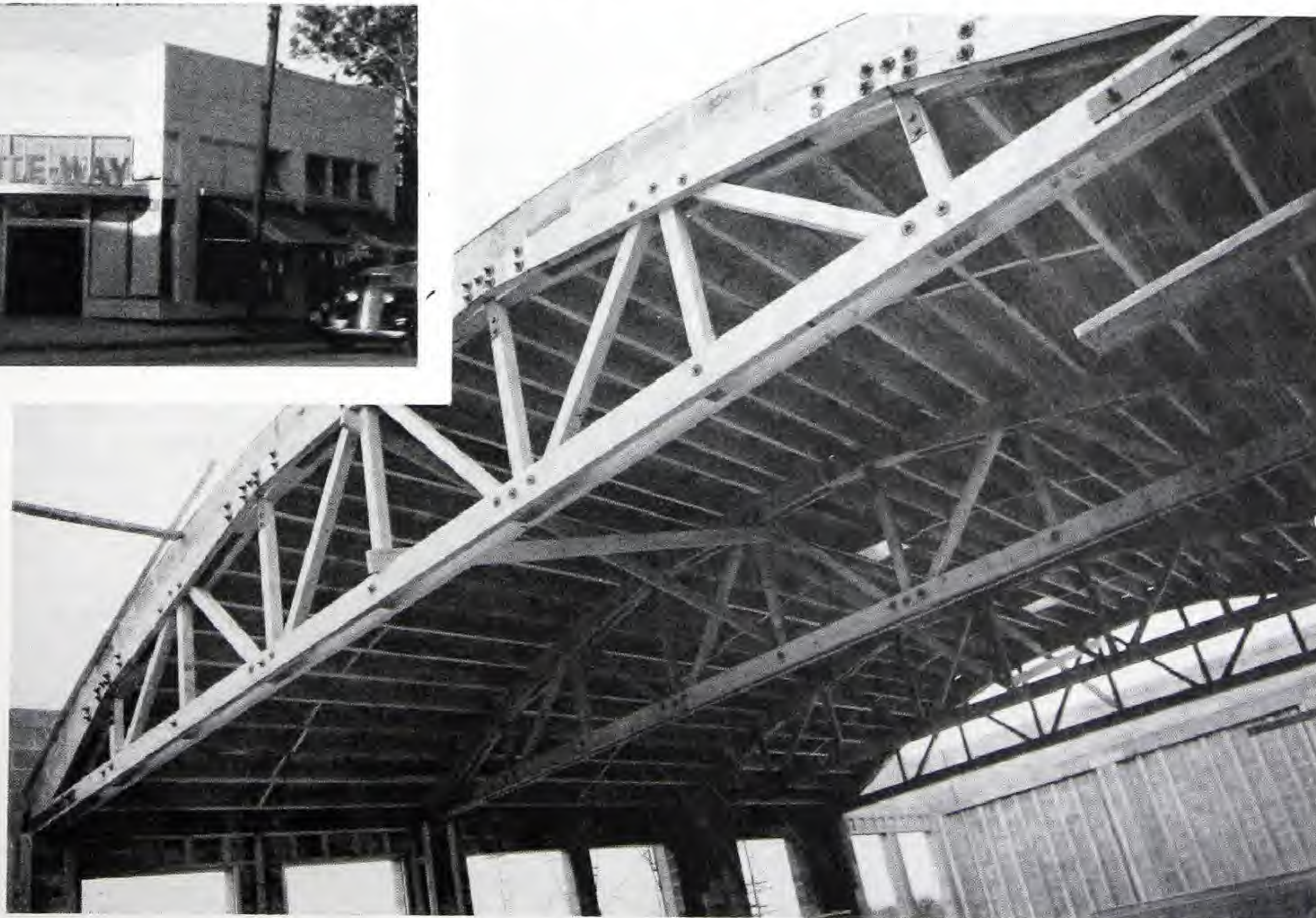
West Coast Grocery Co. building 240' x 646', Tacoma, Wash., using Monocord trusses, designed by Smith and Murray, engineers, and prefabricated by Coons and Wasser Fabricating Co., Tacoma.

Stores...



↑ Modernistic type store building using Teco connector construction. Trusses prefabricated by Connector Truss Company, Houston, Texas.

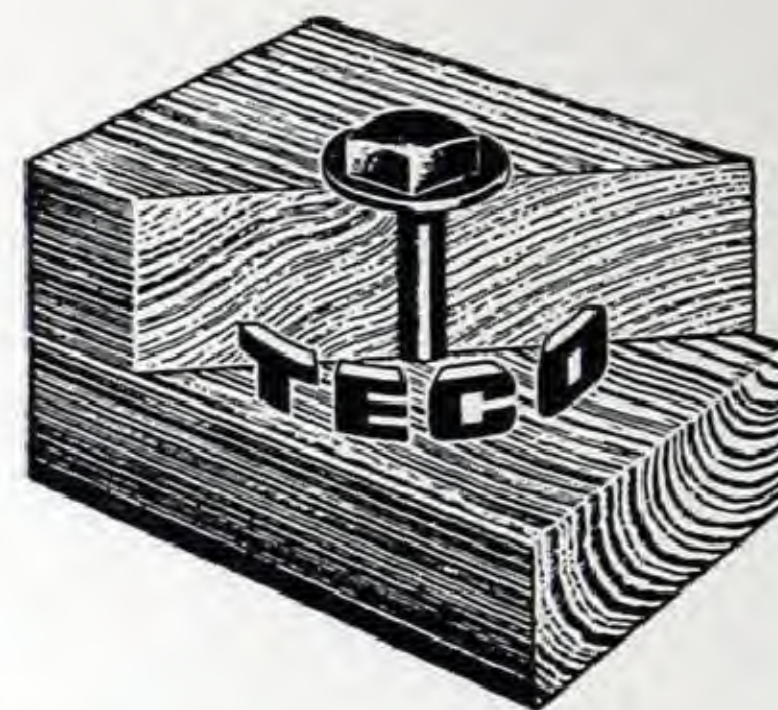
→ J & N 40' arch trusses for Seattle store building, fabricated by Jefferson and Nelson, Seattle, Wash.



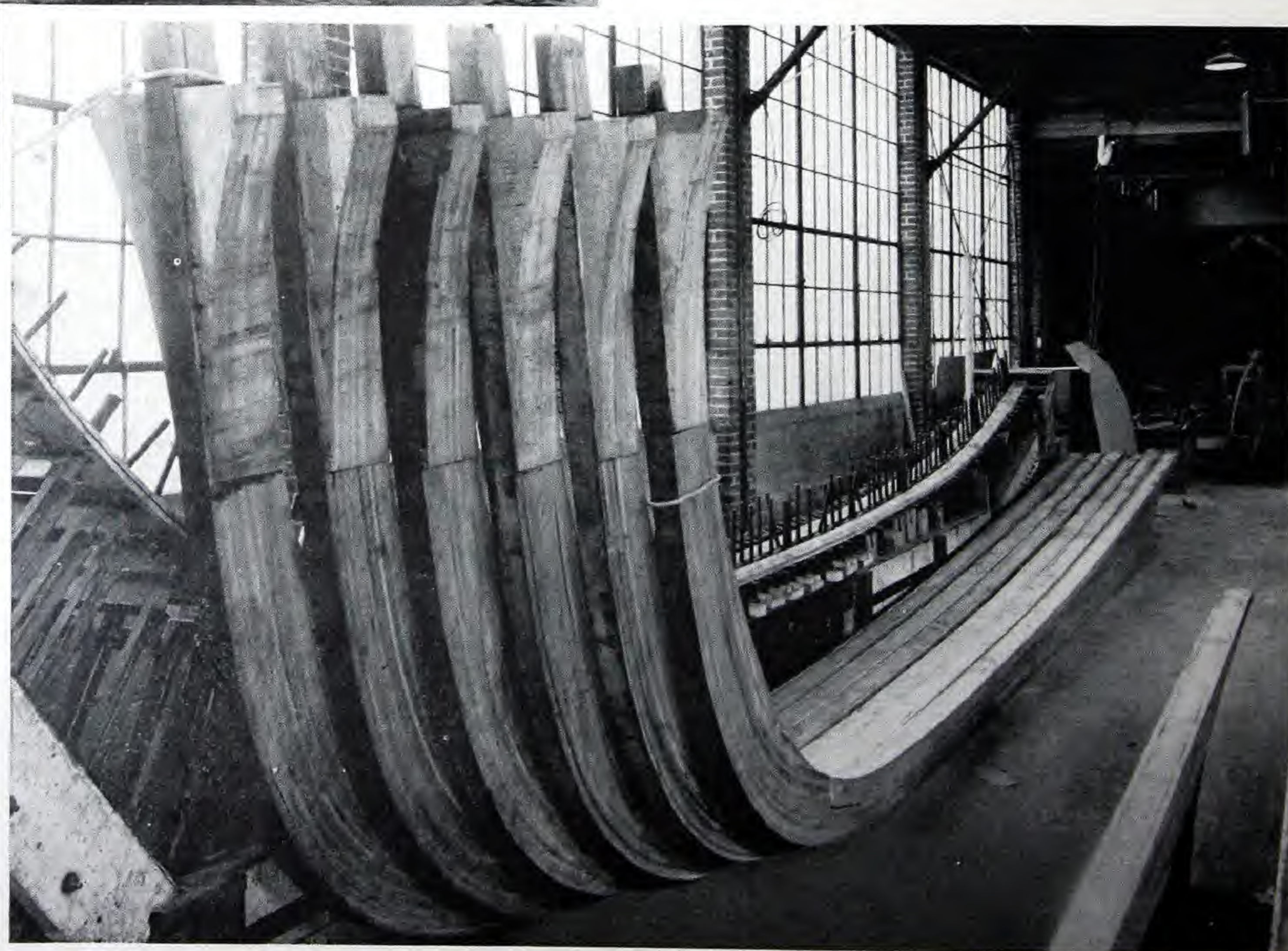
Boats...



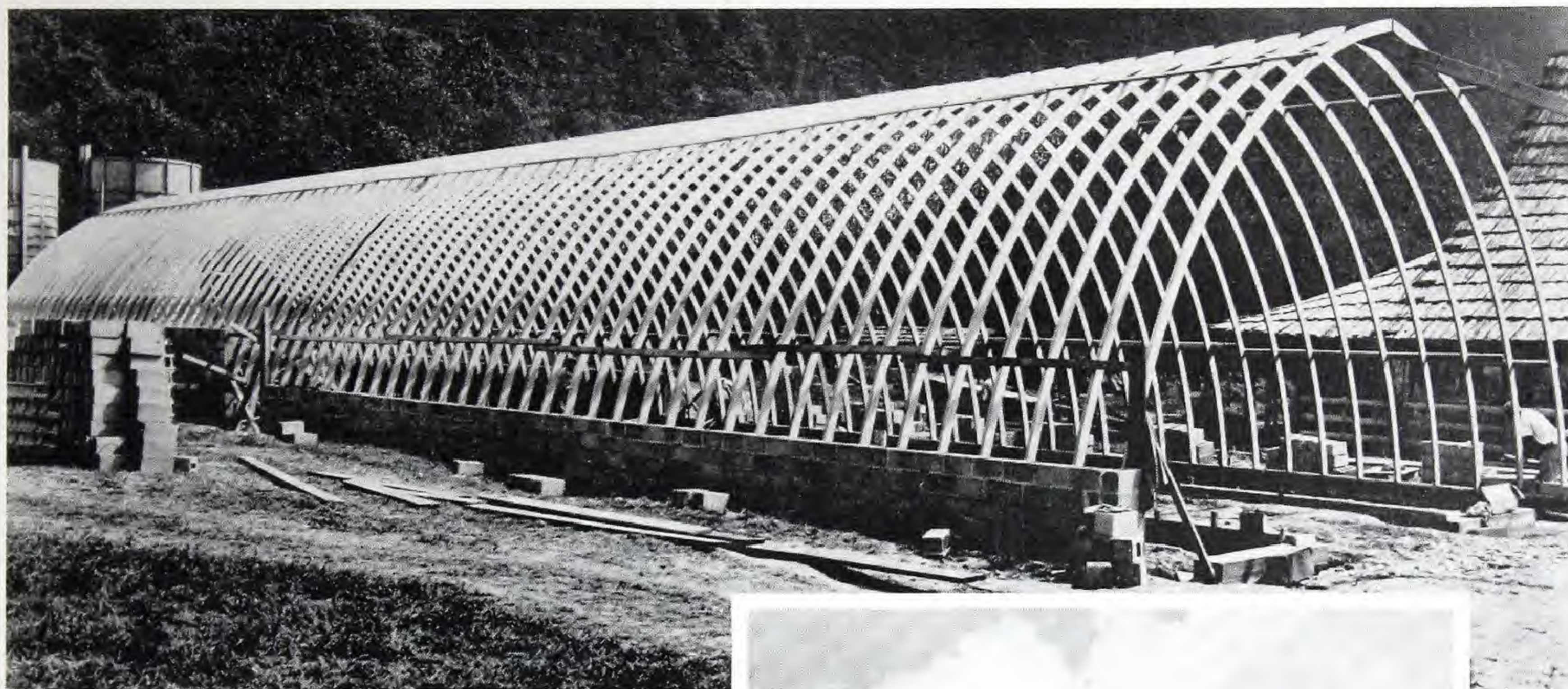
"International 110" racing sloop by Hagerty Company, Cohasset, Mass. The 110 is 24 feet long and constructed of $\frac{3}{8}$ inch water proof marine plywood attached to spruce frames and fir chines. Mast is 22 feet high. The "Weldwood" hull is a seamless box-beam unit skillfully planned to absorb torsional stresses in the roughest going.



Laminated Marine Products—A splendid example of how modern adhesive can be used to produce long length unitary wood members of enormous strength. These six ship keels have four times the strength in bending and eight times the resistance to deflection that conventional bolted wood keels have. The glues used are stronger than the wood and will under no known conditions deteriorate in water. Designed and manufactured by Gamble Brothers, Louisville, Ky.



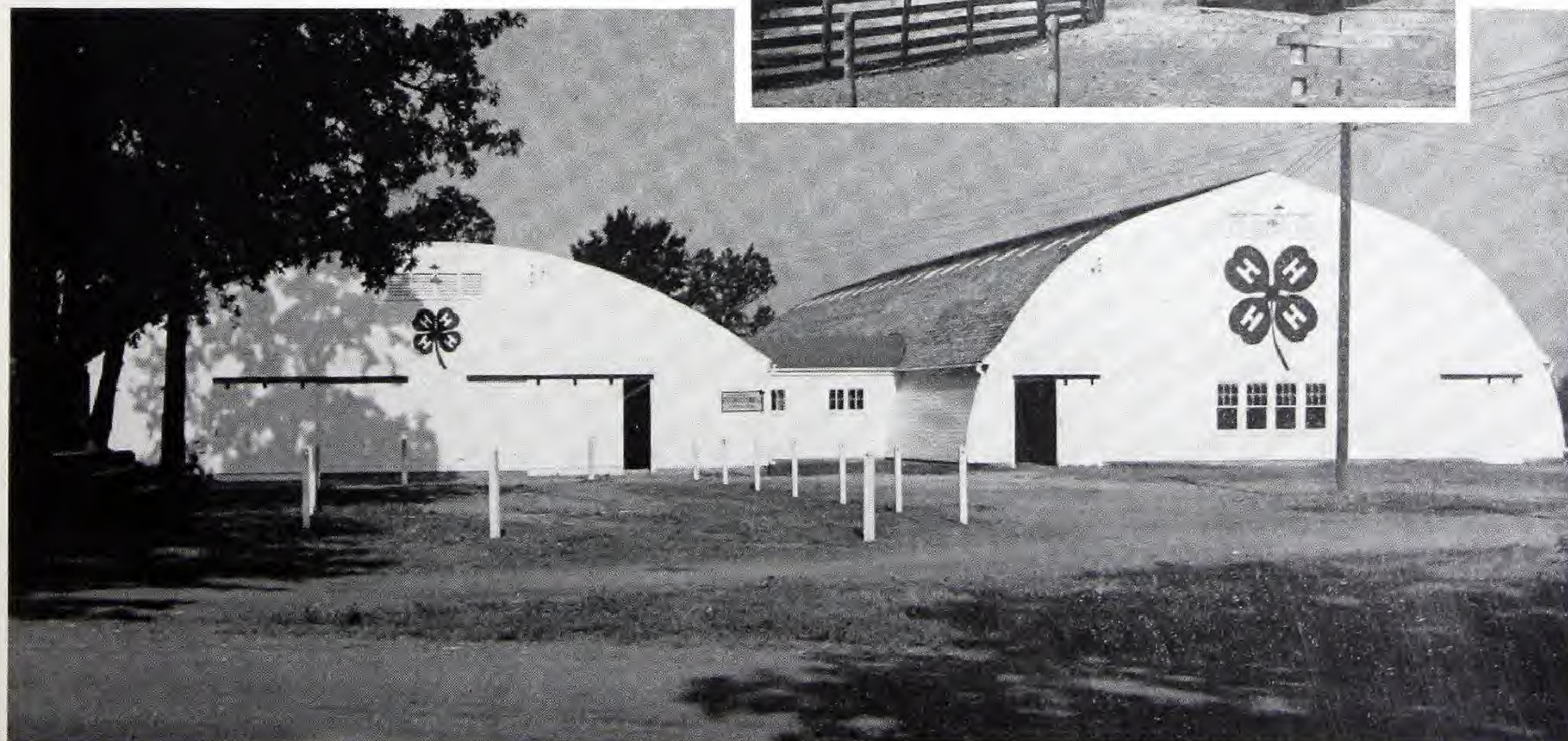
Farm Buildings . . .



Laminated Gothic arch type farm building provides clear open space. Designed and fabricated by Timber Structures, Inc., Portland, Oregon.

Barn framed with glued laminated arches provides pleasing exterior and maximum interior space. Laminated arches by Rilco Laminated Products, Inc., Albert Lea, Minn.

Freeborn County, Minnesota, 4-H Buildings. Trusses designed and fabricated by Rilco Laminated Products, Inc., Albert Lea, Minn.



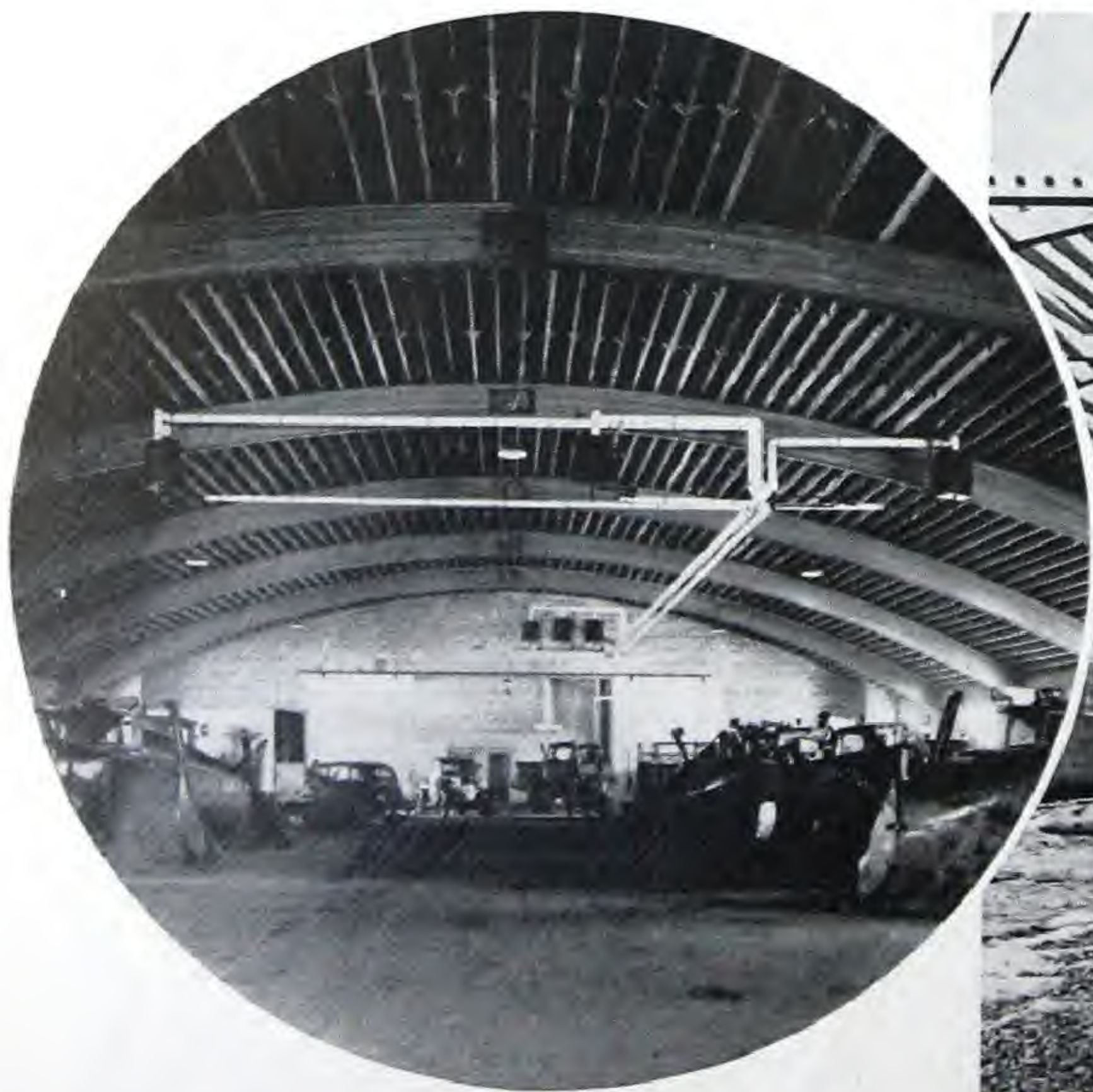


Garage for Adler Motors Co., Los Angeles, using three 130' and four 60' Summerbell ledger type trusses.



Glued, laminated 125' bowstring trusses built for Nelson Chevrolet Motors by McKeown Bros. Company, Chicago.

Garages . . .

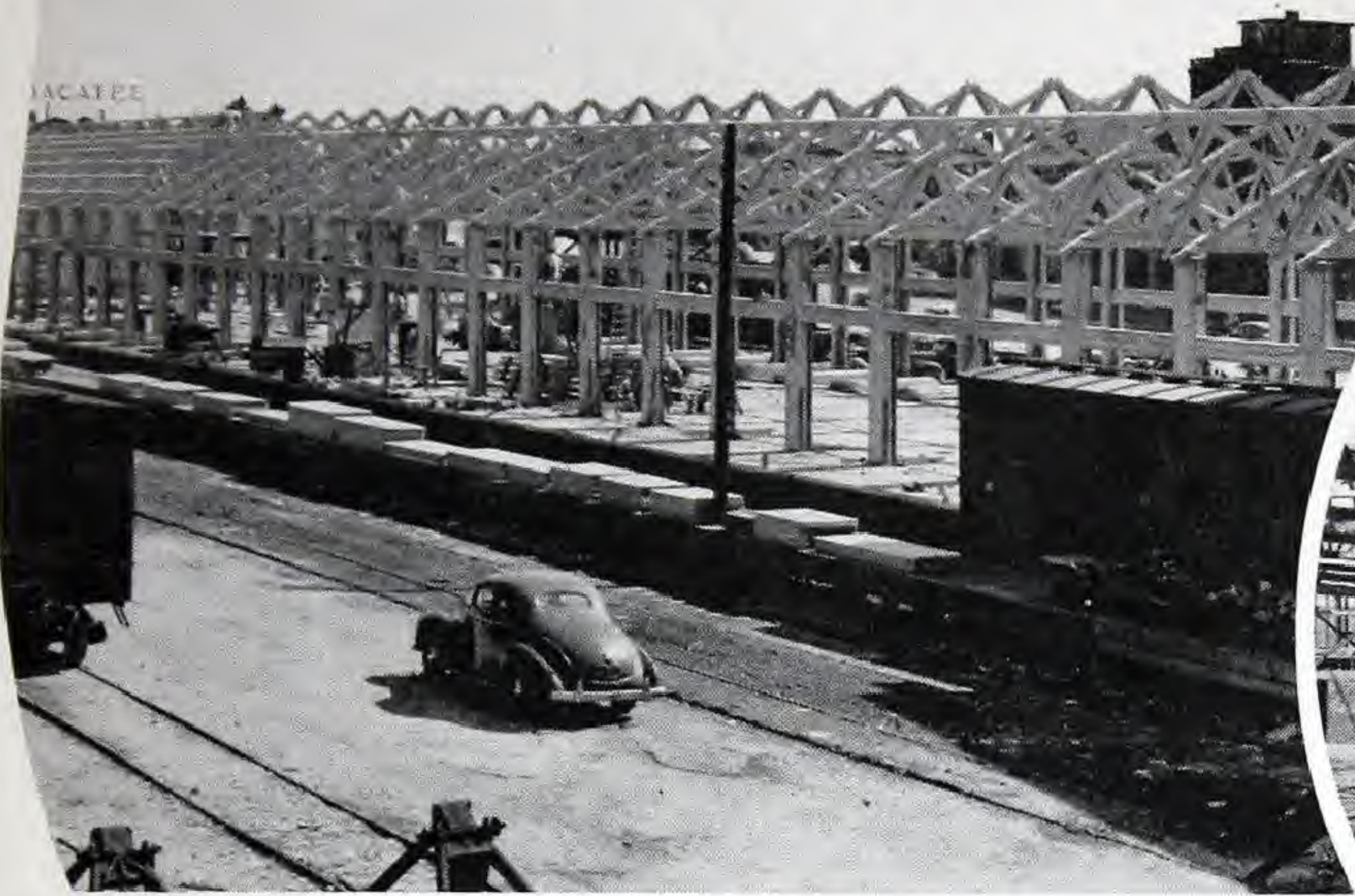


County highway garage, Stevens Point, Wisc., using 80' glued laminated arches with buttresses manufactured by Rilco Laminated Products, Inc., St. Paul, Minn.



Rhinehart Motor Company sales and service building, Lebanon, N. J., using 80' segmental arch trusses and 40' sloping Pratt trusses, fabricated by Weyerhaeuser Sales Company, Newark, N. J.

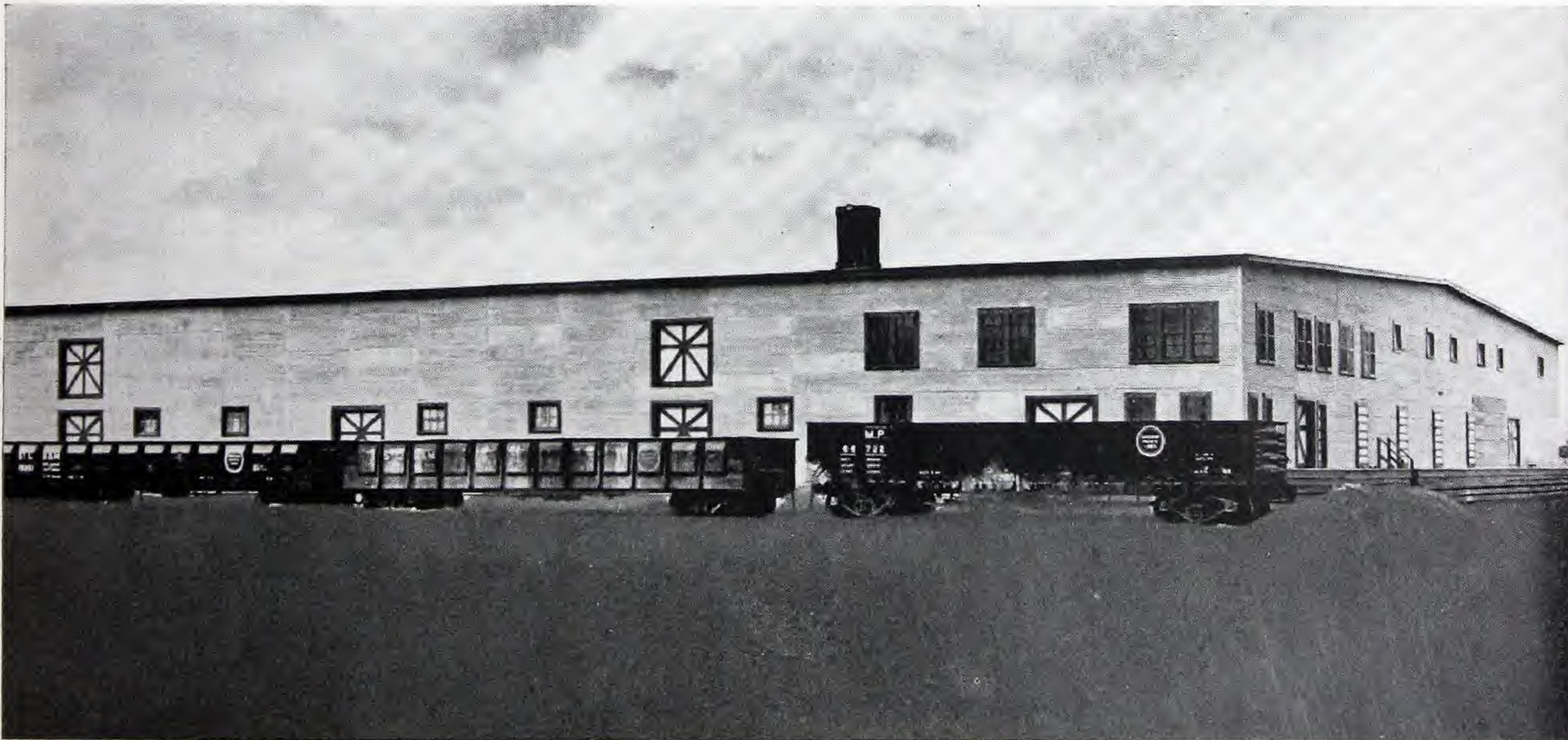
Missouri Pacific warehouse for Alamo Fruit and Vegetable Co., Alamo, Texas. Nine 88' bowstring Teco connected trusses and columns, fabricated and erected by Connector Truss Company, Houston, Texas.



↑ International Great Northern freight station, Houston, Texas. Trusses, canopy, braces and purlins fabricated by Connector Truss Co., Houston. Architecture and engineering by International Great Northern.



Railway Structures . . .



American Fruit Growers warehouse erected by Missouri Pacific at Weslaco, Texas. Teco split rings and shear plates used in 56' and 32' trusses, fabricated by Connector Truss Company, Houston, Texas. General contractor, Schneider Construction Co., Houston.

Railway Structures . . .



Lowell & Grayson Co. plant, Raymond and Southern Pacific Railroad, Monrovia, Calif. V-type 50' glued, laminated arches, manufactured by Summerbell Roof Structures, Los Angeles.

Engine House 80' x 68', Minneapolis & St. Louis railroad, Peoria, Ill. The 80' glued, laminated arches were designed and fabricated by Rilco Laminated Products, Inc., St. Paul, Minn.



Railway Structures . . .



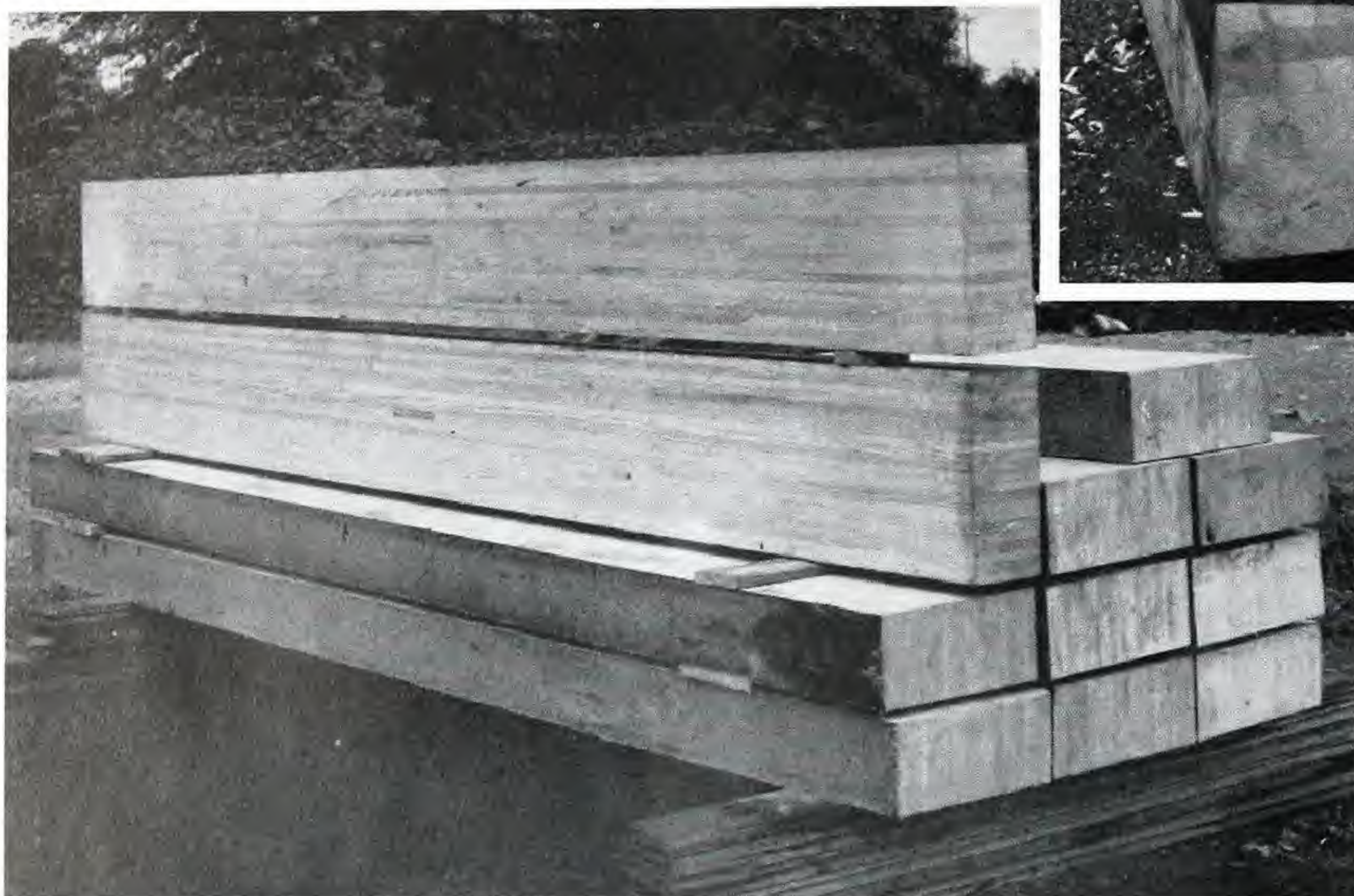
Pedestrian Overpass, 170 ft. main span, Denver and Rio Grande Western Railroad at Denver, Colorado. Designed by Weyerhaeuser Sales Company. Fabricated by Weyerhaeuser Timber Company. All truss material given Minalith salts treatment. TECO split rings and shear plates used at structural joints.



Highway overpass Portland, Oregon. Built entirely of Wolmanized lumber. Treatment and fabrication by Wauna Lumber Company, Wauna, Oregon.

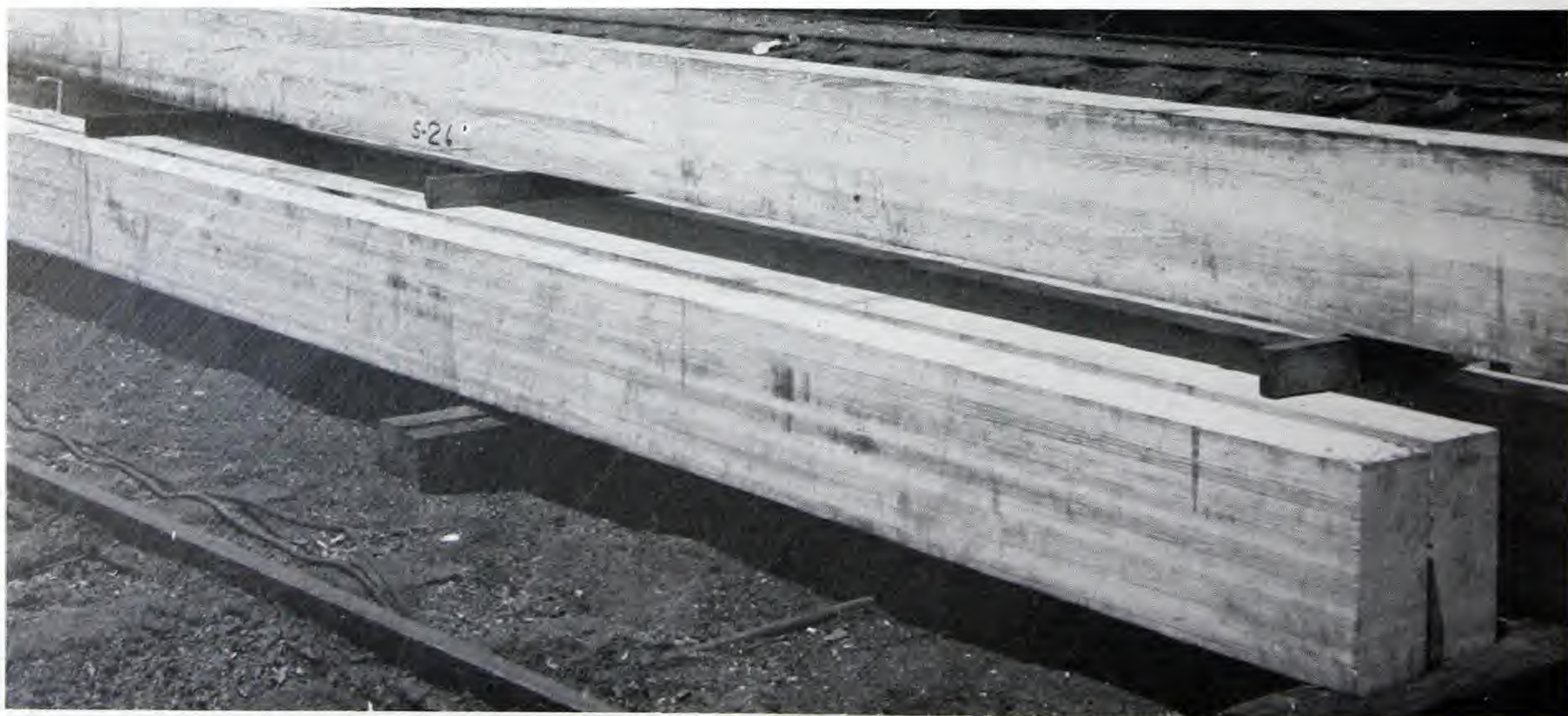
Railway Structures . . . glued, laminated timbers

Close-up view of laminated yellow pine 12' railway bridge posts and caps oak faced for wear produced by Gamble Brothers, Louisville, Ky.

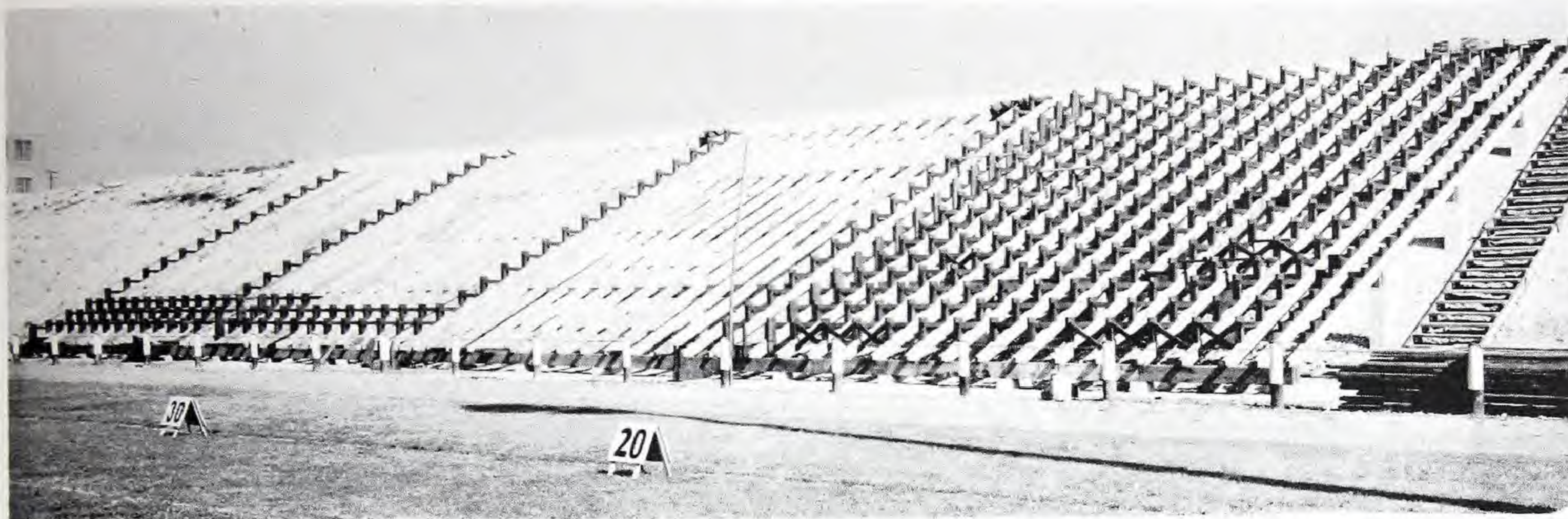


Laminated southern yellow pine bridge timbers 14' x 16" x 7", produced by Gamble Brothers, Louisville, Ky.

Close-up view of 27' laminated yellow pine stringers for railway use, produced by Gamble Brothers, Louisville, Ky.



Grandstands . . .

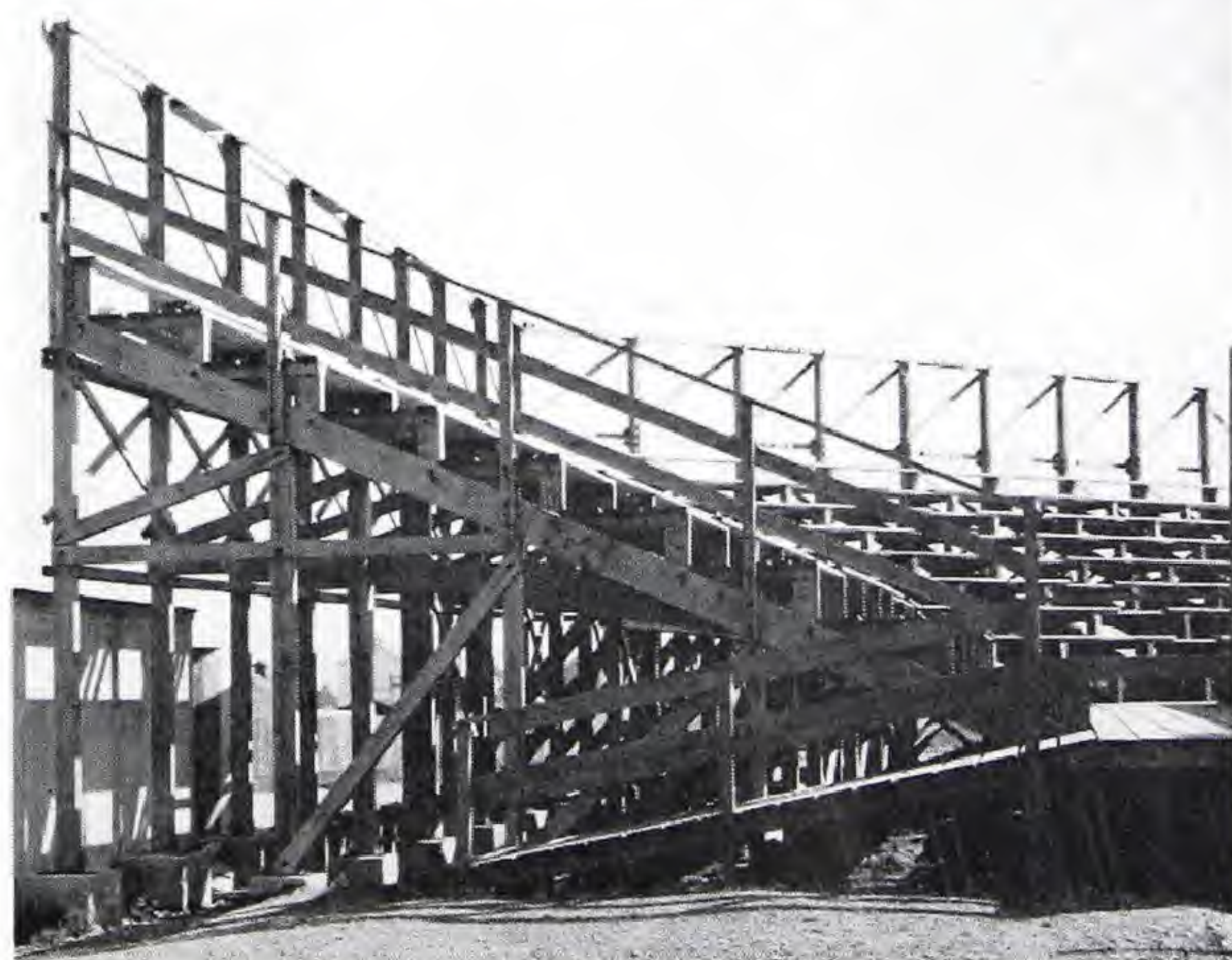
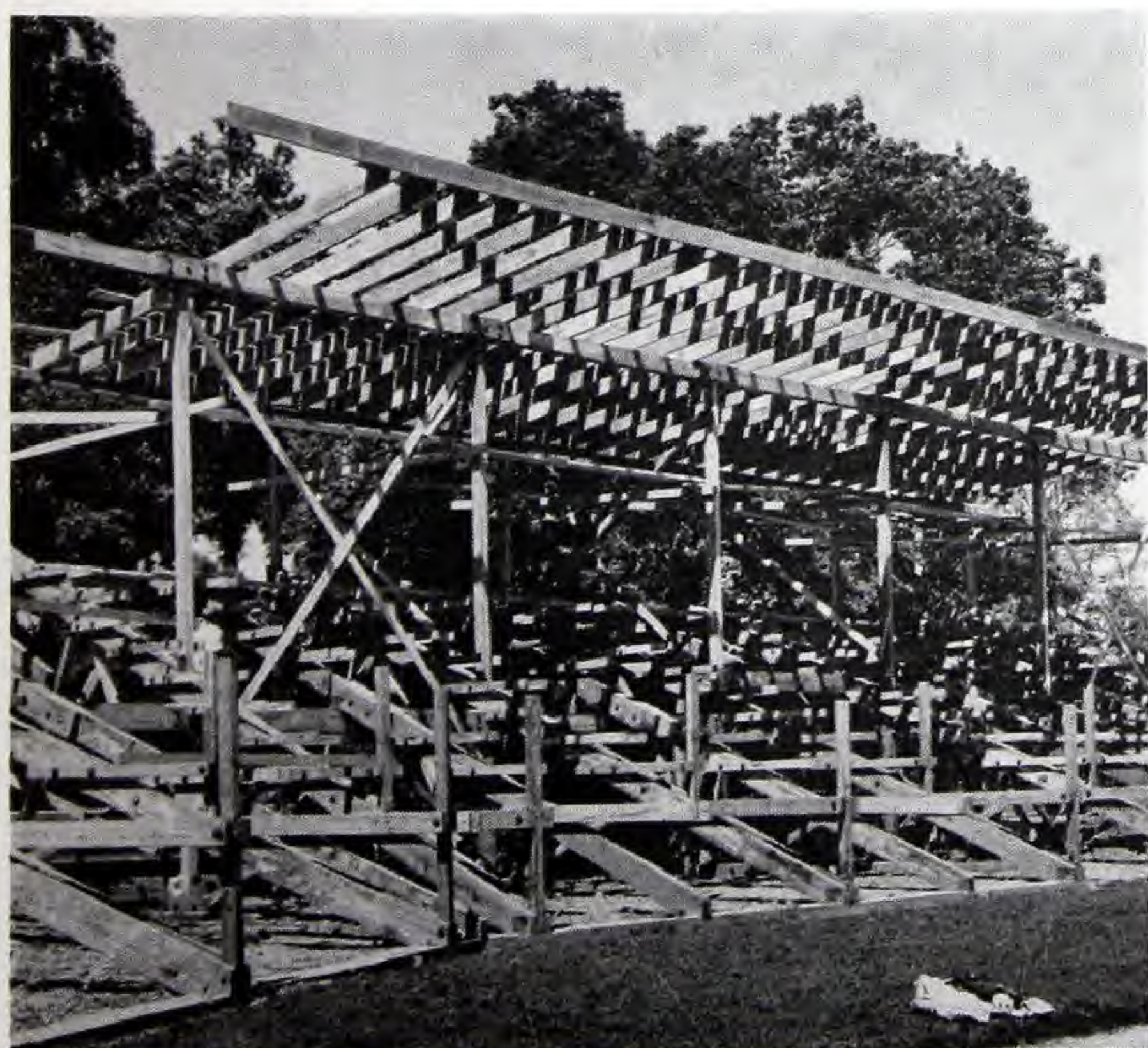


↑ Fort Hill High School stadium, Cumberland, Md. Teco connector construction with Wolmanized lumber supplied by Wood Preserving Division, Koppers Company, Inc., Pittsburgh.

→ Bleachers for Rochester, N. Y., Board of Education, using Teco connector construction. Fabricated by Cartwright and Morrison, Holcomb, N. Y.



↓ River Oaks tennis stadium under construction, Houston, Texas. Teco connector construction with Wolmanized lumber supplied by Wood Preserving Division, Koppers Company, Inc., Houston.



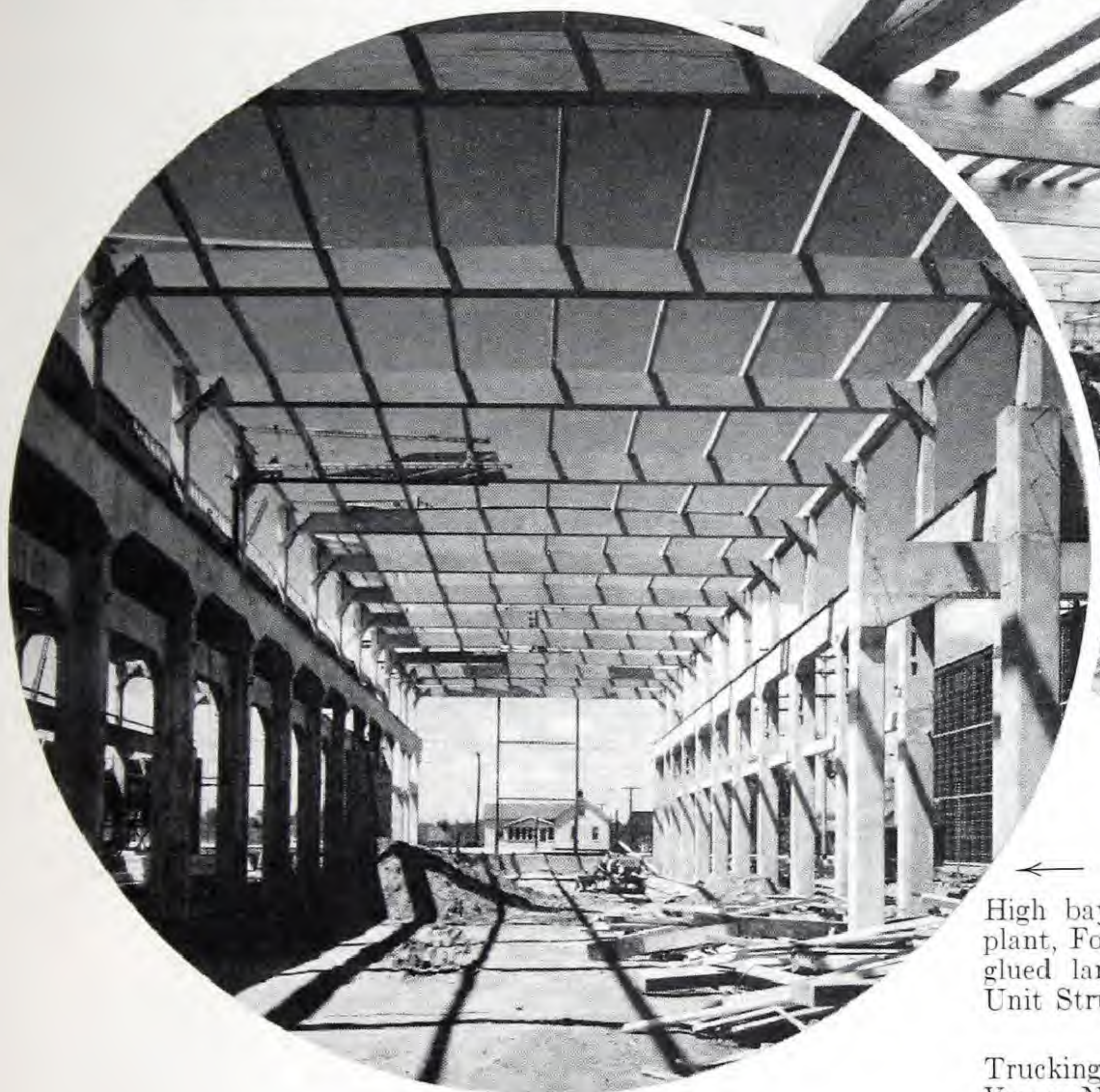
Small Grandstand constructed of Wolmanized pressure treated lumber using Teco Connectors. Constructed at Helena, Montana. Treated and prefabricated by Wauna Lumber Company, Wauna, Oregon.



First water sound stage ever built. Size 137' x 240'. Spanned with Teco timber connector trusses. Fabricated by Summerbell Roof Structures, Los Angeles, for Warner Bros. First National Studios.

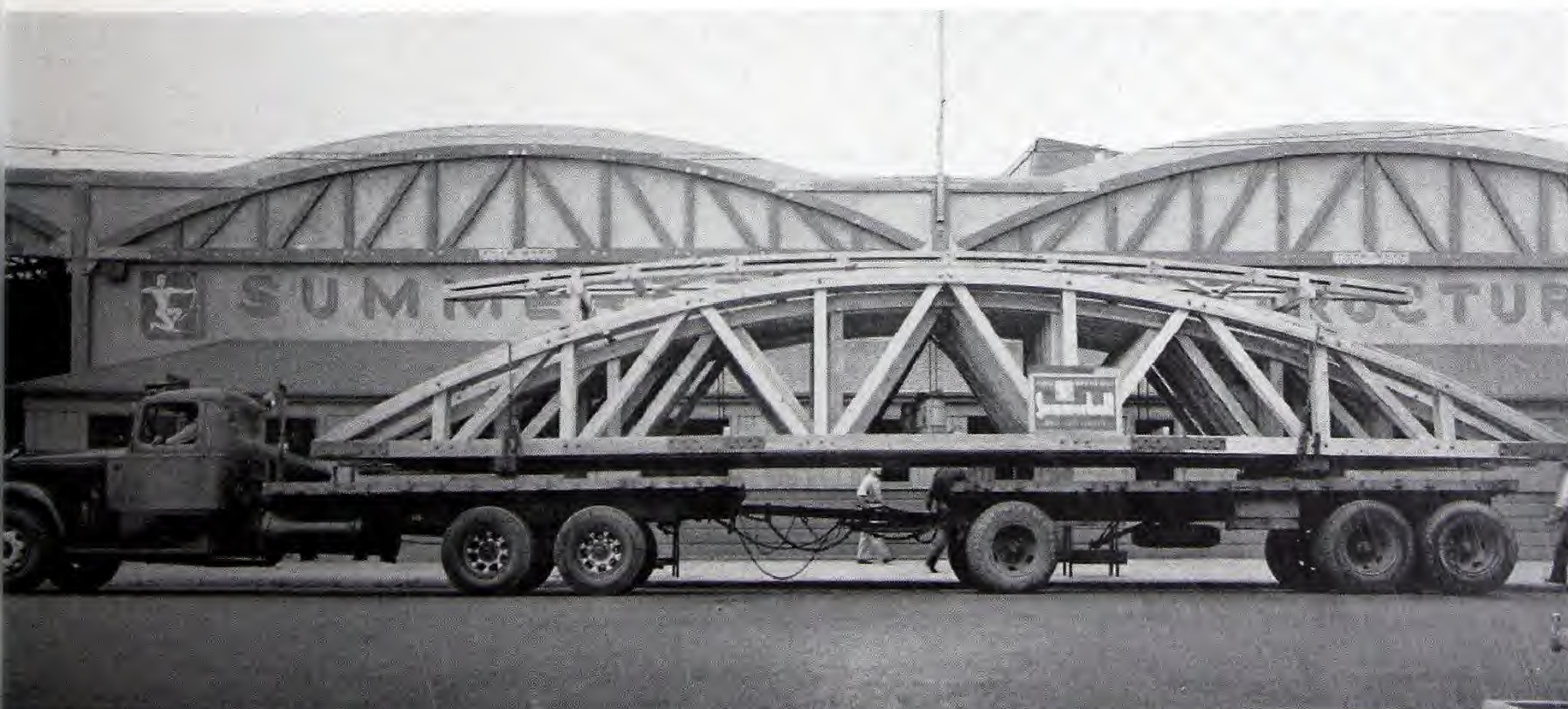
Industrial Construction . . .

→
Freight transit shed, Railway Express Co., Portland, Oregon. Laminated beam construction. Designed, fabricated and erected by Timber Structures Inc., Portland, Ore.

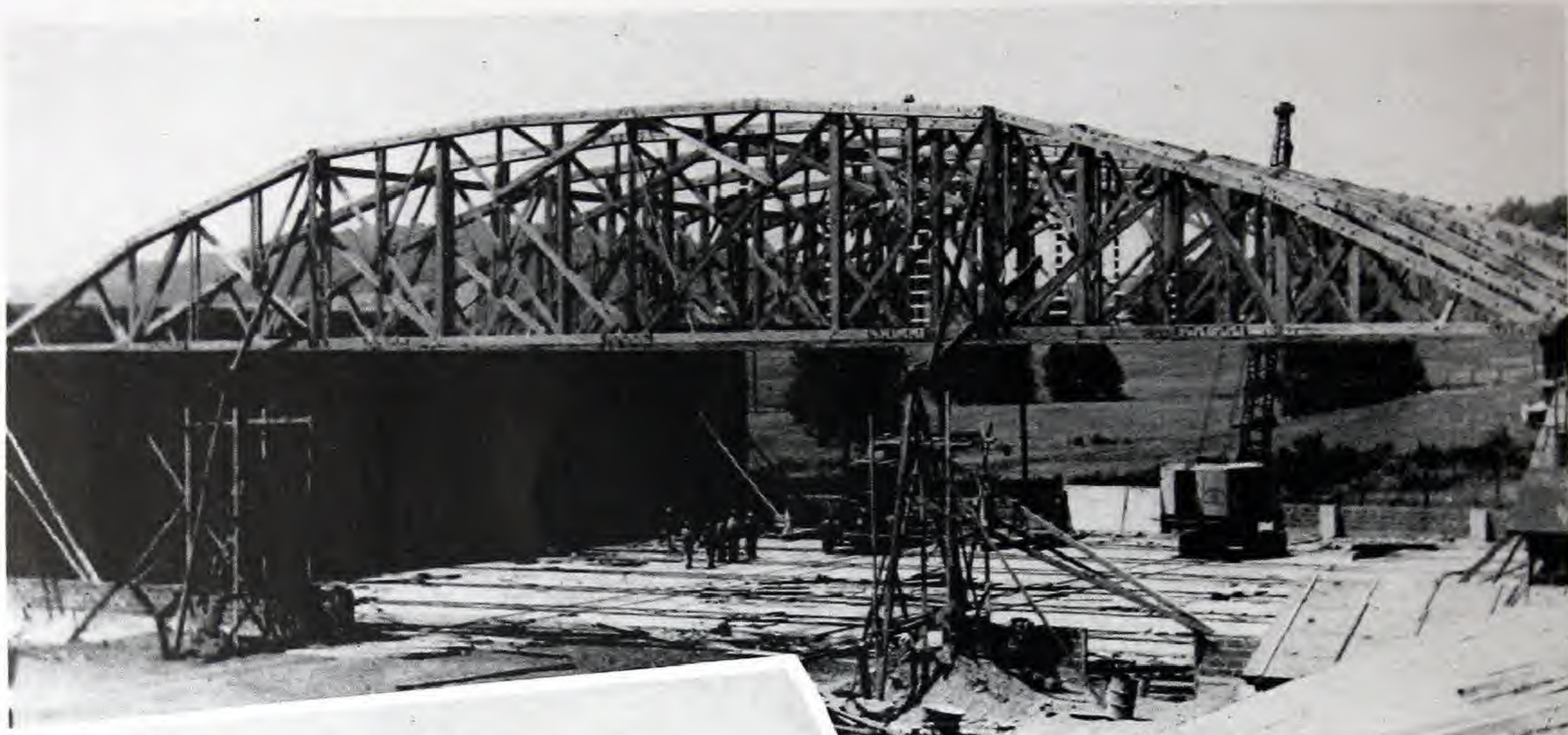


←
High bay of Giddings Lewis Machine Tool Corp'n. plant, Fond du Lac, Wisc., using 62' x 15" x 35" unit glued laminated beams, designed and produced by Unit Structures Inc., Peshtigo, Wisc.

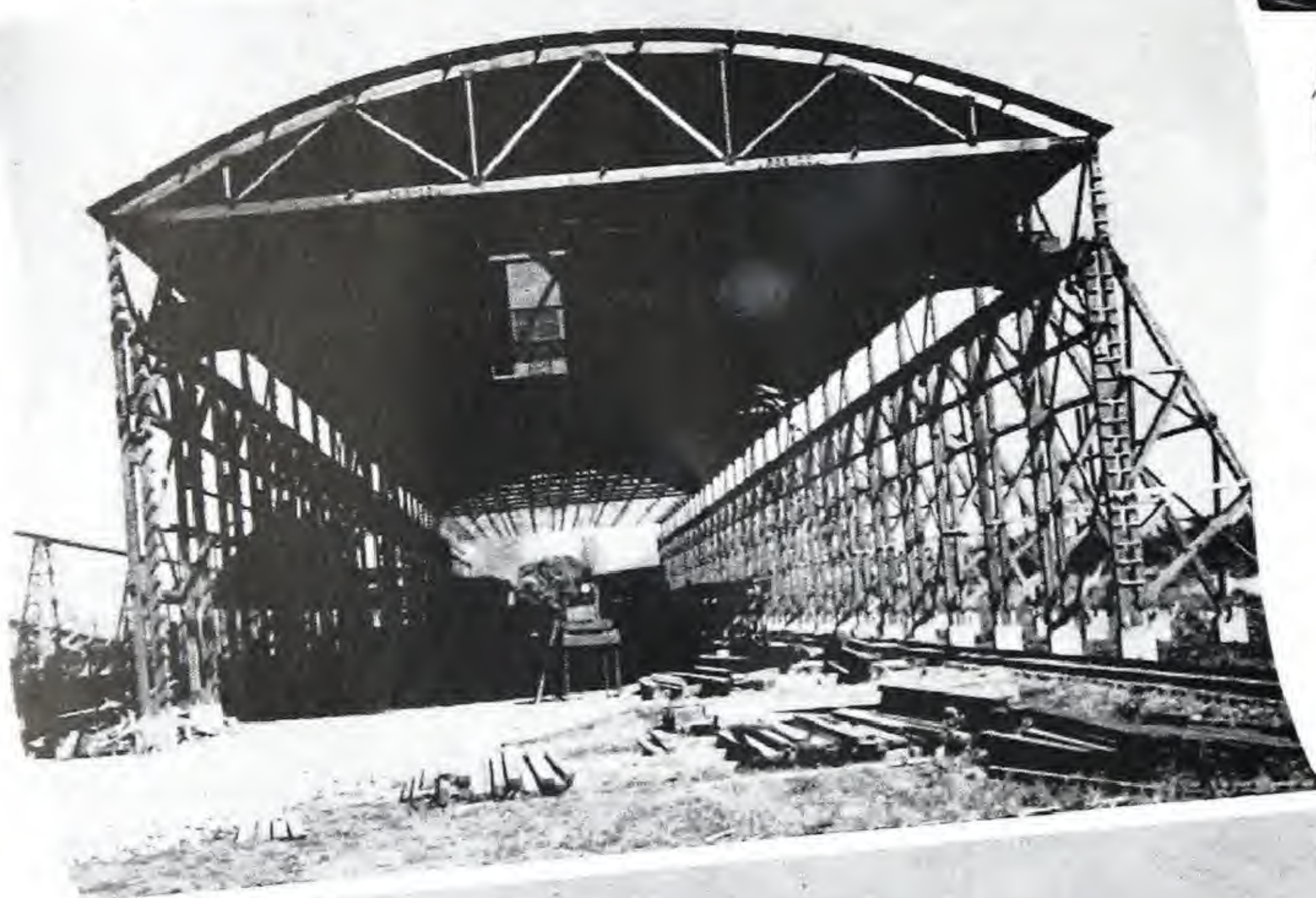
Trucking ready-to-erect trusses to job site in Las Vegas, Nevada. Trusses designed and fabricated by Summerbell Roof Structures, Los Angeles, Calif.



Industrial Construction . . .



↑ Industrial building, Orange, Va., using 154' modified bowstring trusses designed and fabricated by Cartwright and Morrison, Holcomb, N. Y., using Teco connectors.



← Receiving shed and craneway 83' x 560', Clear Fir Products Co., Springfield, Ore. The 80' bridge crane has 15 tons capacity. Truss fabricator and contractor, Summerbell Roof Structures, Springfield, Ore. Teco connectors used throughout. Engineers, Smith and Murray, Tacoma, Wash.

Storage shed 176' x 332' for kiln dried lumber, Crossett Lumber Company, Crossett, Ark. The 80' trusses use Teco joint connectors. New shed provides storage for 5,800,000 feet of lumber.



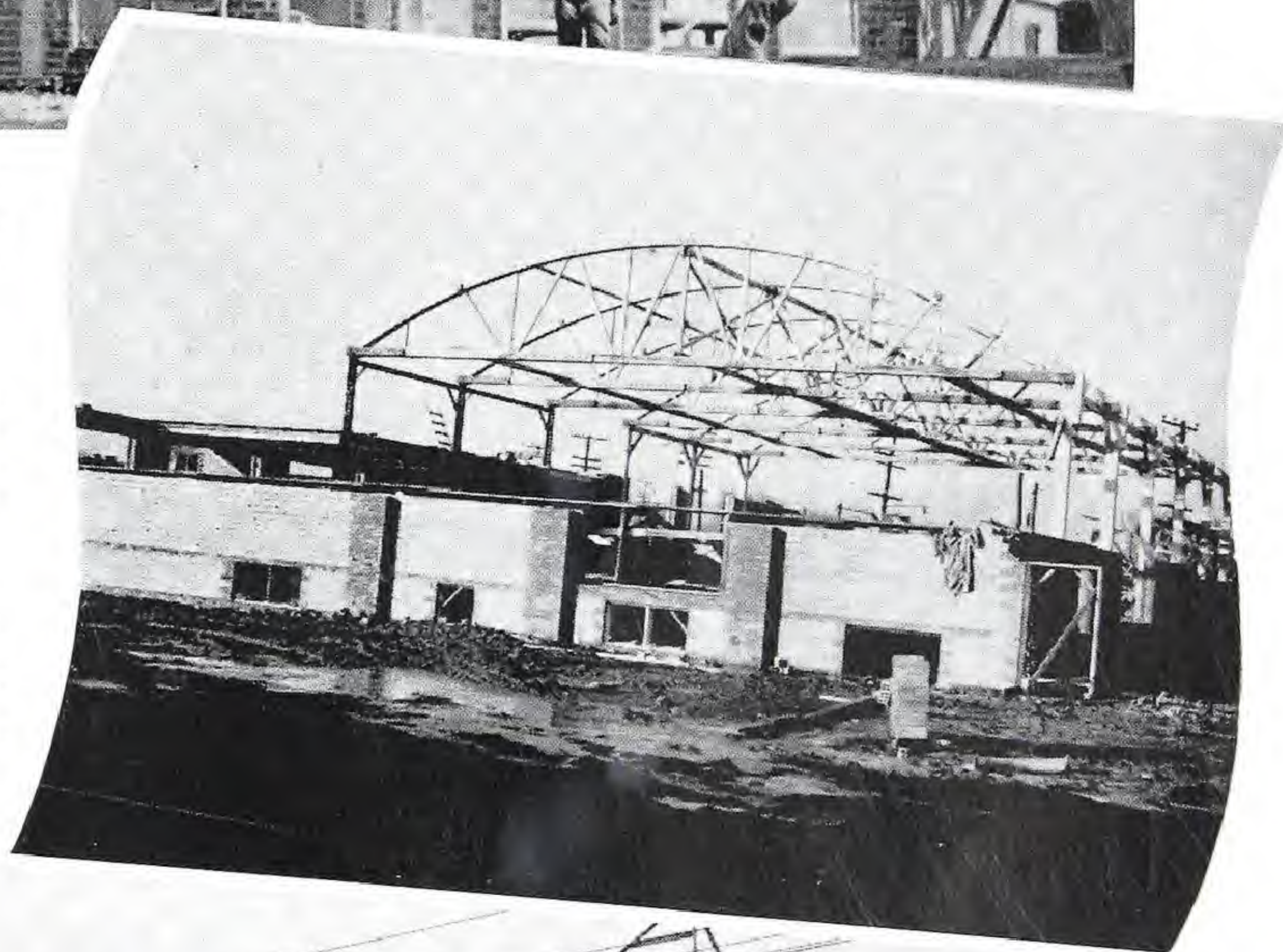
Industrial Construction . . .



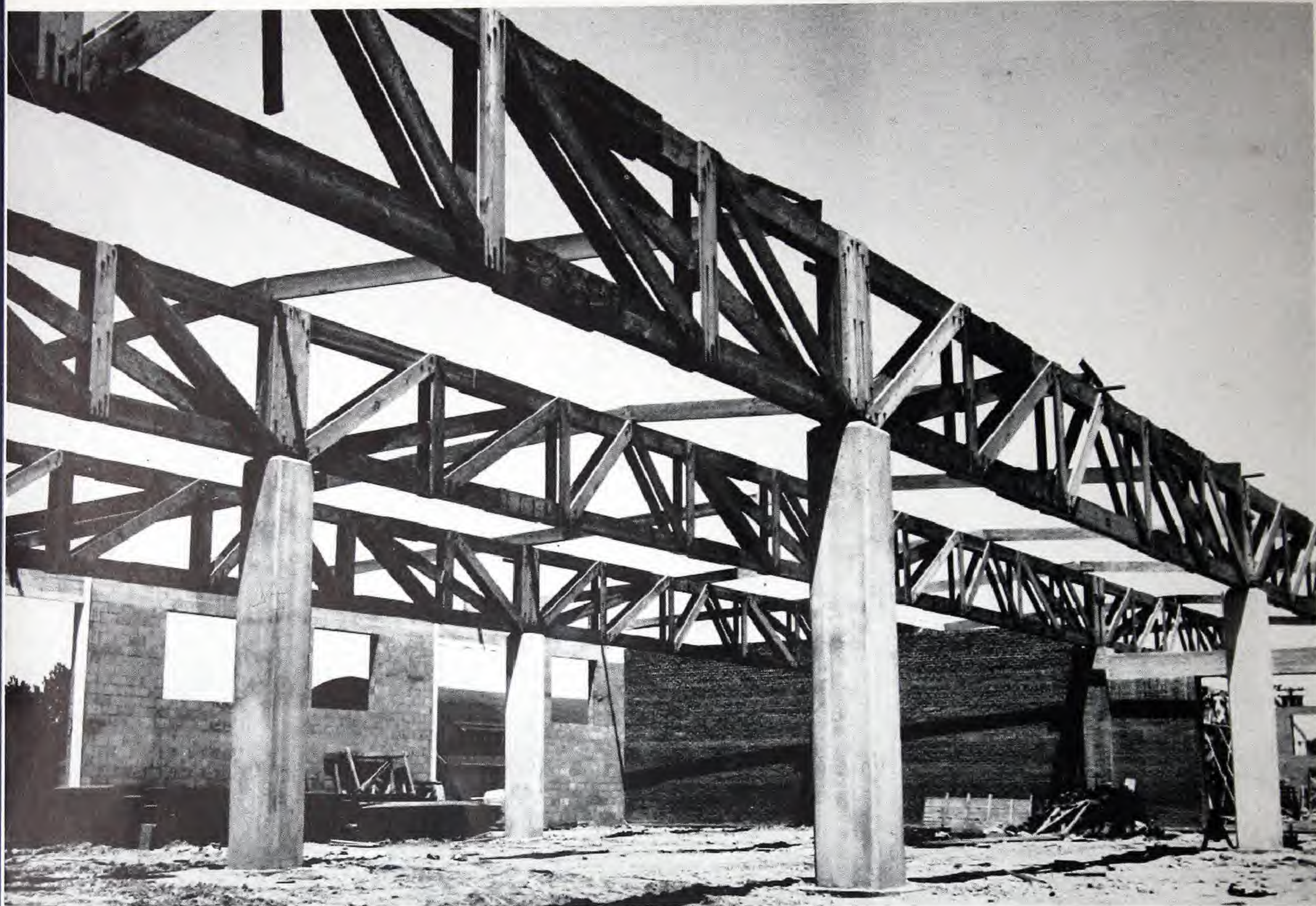
Erection of 80' bowstring trusses at Welsh Sash & Door Co., Corpus Christi, Texas. Trusses designed and fabricated by Connector Truss Company, Houston, Texas, using Teco connectors.

Mill room of Lyman-Hawkins Lumber Co., Akron, Ohio, using Teco connectors in 60' mill room trusses. Design by Timber Engineering Company of Ohio. Trusses built by employees of Lyman-Hawkins Lumber Co.

Bethlehem Hingham Shipyard, Inc., Hingham, Mass. Timber trusses with mill construction side bays. Distributor Teco connectors in Northeast, Timber Engineering Company of New England. East Boston, Mass.

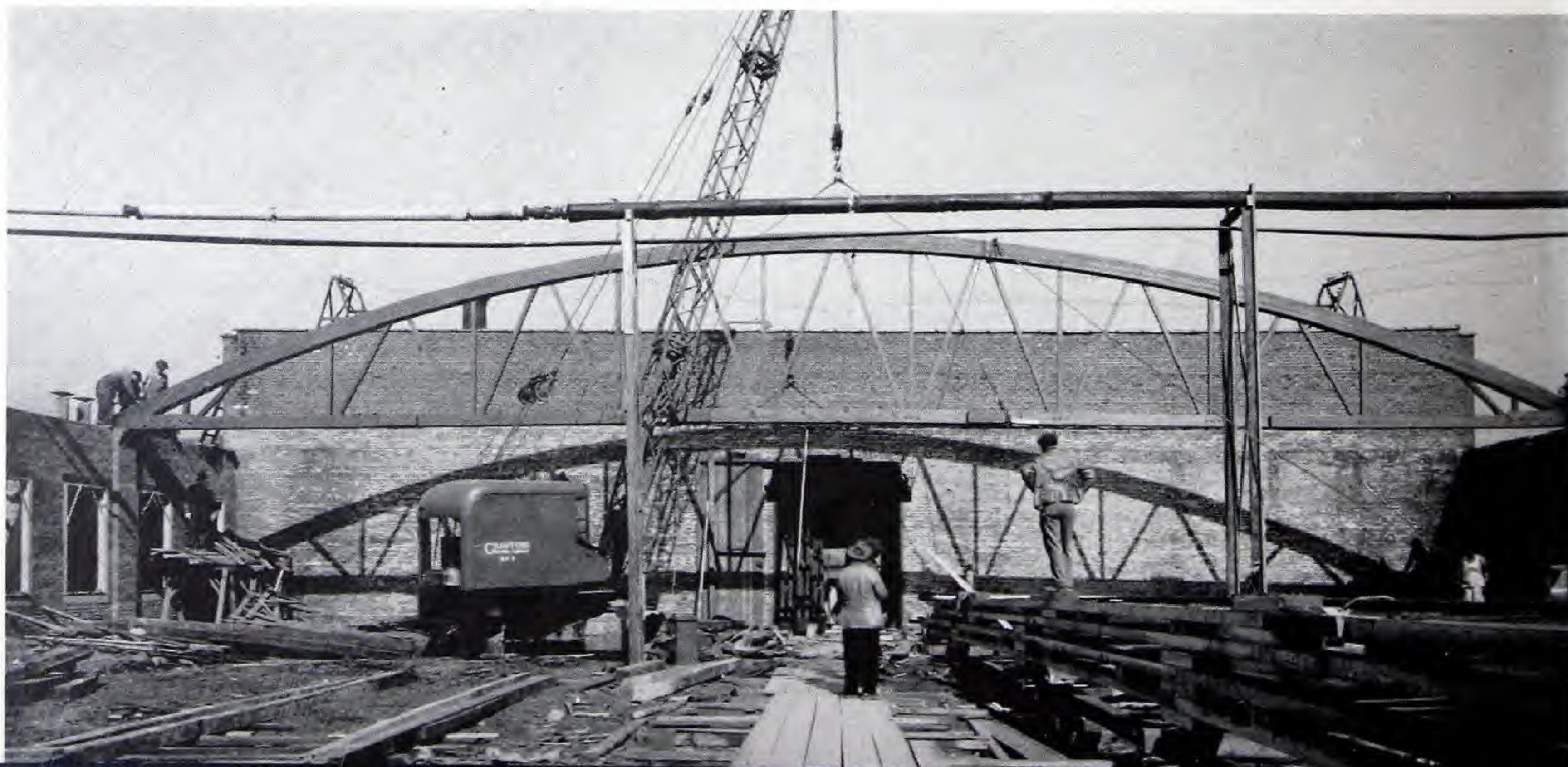


Industrial Construction . . .



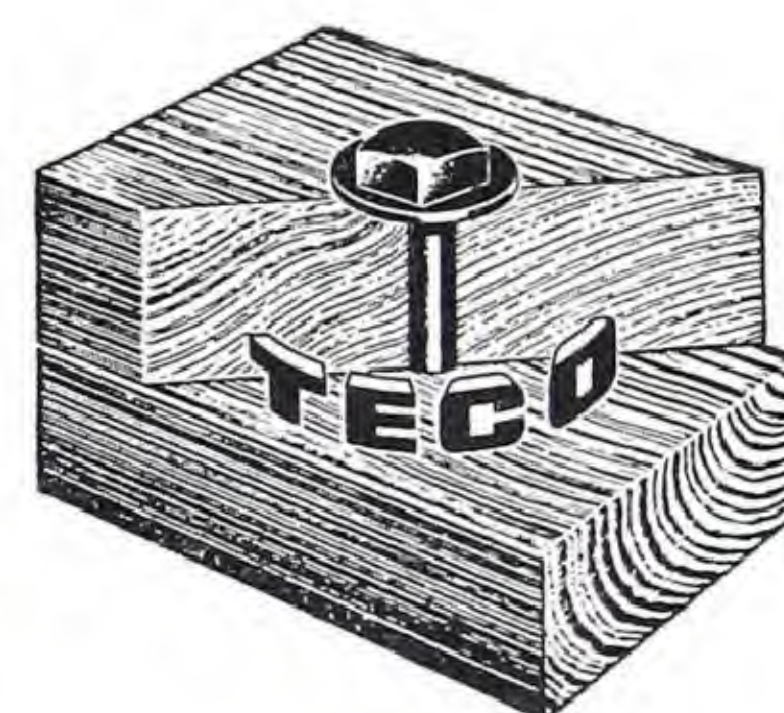
↑ Wholesale lumber warehouse 96' x 300' using 50' flat Howe trusses with Teco split rings at all joints. Built by Long Bell Lumber Company, Enid, Oklahoma.

Erection of 100' clear span trusses at Hyde Park Lumber Company, Cincinnati, Ohio. Photo by Timber Engineering Company of Ohio, Cincinnati.





High school gymnasium, Darlington, Wisc. The 63' unit type arches, designed and manufactured by Unit Structures, Inc., Peshtigo, Wisc.



Gymnasiums . . .



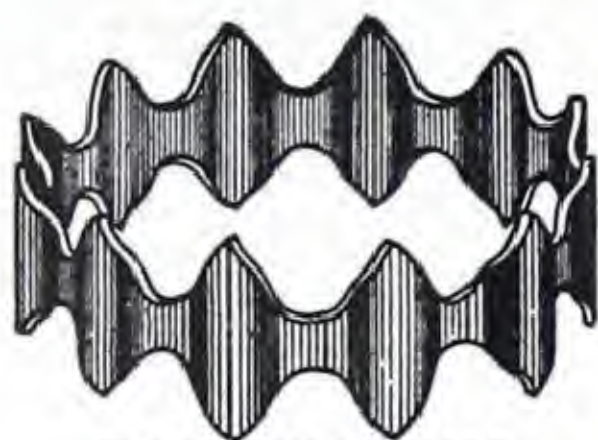
Unit segment 76' arches supported by buttresses in high school gymnasium, Ellendale, N. D. Designed and manufactured by Unit Structures, Inc., Peshtigo, Wisc.

TECO TIMBER CONNECTORS

FOR LIGHT AND HEAVY TIMBER STRUCTURES



SPLIT RING
Pat.

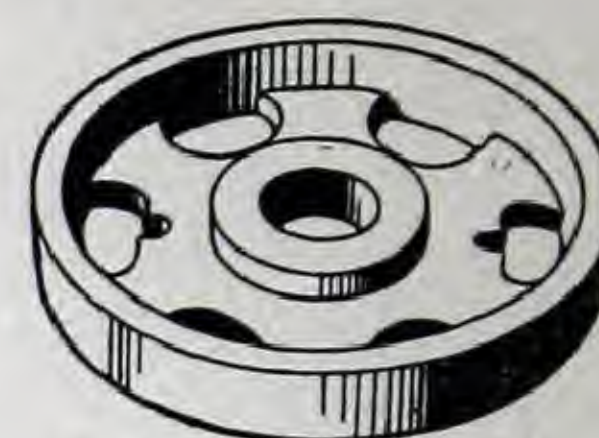


TOOTHED RING

Teco Timber Connectors are devices for increasing the strength of the joints in timber construction. They are placed between adjacent faces of overlapping timbers to develop the full working stresses of the lumber. The connectors accomplish their purpose by providing a large area for the surrounding timber to bear against. This eliminates the small bearing area provided by a bolt, and enables the stresses to be distributed over practically the entire cross section of the timbers involved. Connectors hold the timbers in place much more firmly and rigidly than bolts and nails and permit use of lumber in economical sizes. The connectors are placed in the timber in precut grooves or through pressure embedment.



PRESSED STEEL
SHEAR PLATE
Pat.



MALLEABLE IRON
SHEAR PLATE
Pat.

TECO Connectors are Better . . . Save Money!

The value and efficiency of connectors lie in these facts:

1 They transmit large loads between members without seriously reducing the cross-sectional area of the members joined.

2 They permit the use of structural quality lumber in small sizes.

3 They reduce the amount of hardware required—fewer bolts, rods, washers, etc.

4 They can be easily installed.

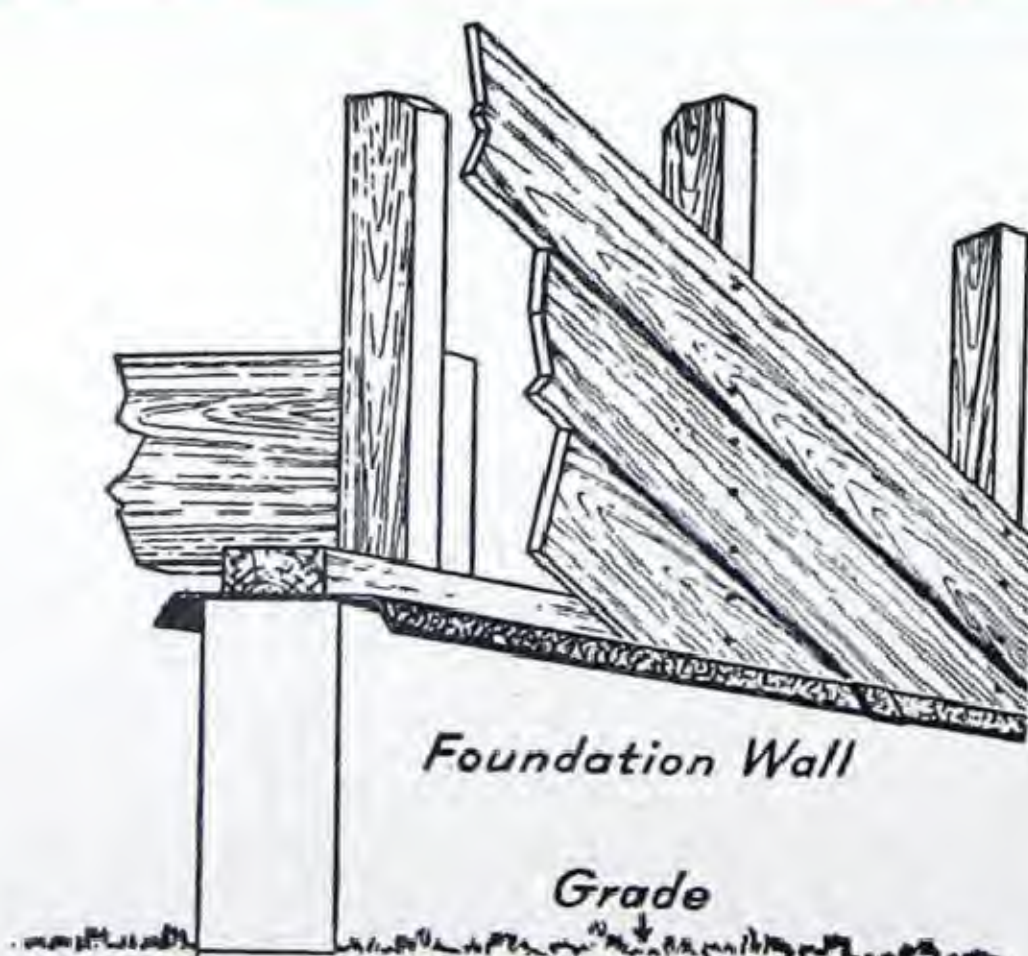
5 They are inexpensive.

6 They are well suited either to factory fabrication or on-the-job fabrication of the building parts, and the erection is economical.

Teco timber connectors are available complete with installation tools and equipment direct from this company and through distributors in principal cities. Most of the structures illustrated in this publication are framed with Teco timber connections.

TECO TERMITE SHIELDS

FOR PROTECTION AGAINST SUBTERRANEAN TERMITES



Termite Shields on Top of Foundation Walls Prevent Entry of Subterranean Termites to Superstructure

Factory fabricated of 26 gauge zinc coated, corrosion resistant steel, Teco termite shields provide insurance against subterranean termite damage. These termites are a problem in over two-thirds of the United States and failure to protect against them may mean costly repair bills.

With the Teco patented slip-on type of shield connector, shields go together quickly and joints remain "termite tight." Adequate sliding space is provided for expansion and contraction of the metal eliminating the chances of joint failure.

No fabricating is required on job except cutting pieces to length. Special corner and pier shields are included in the complete line. These shields ready for use are available from this company and through distributors in principal cities.

TECO *Trip-L-Grip* FRAMING ANCHORS

FOR BETTER HOME AND OTHER WOOD CONSTRUCTION

DEVELOP BOTH SHEAR AND TENSION

These timber connectors that make economical secondary connections in wood framing are particularly adaptable to the following connections:

Joists to Beams
Beams to Posts
Studs to Sills

Rafters to Plate
Plate to Studs
Girts to Posts

Lintels to Bucks
Joists to Nailers
Purlins to Trusses

Manufactured of 18 gauge, zinc coated, corrosion resistant, sheet steel, these anchors are available in 3 types, left and right. Full bodied nails are furnished FREE and develop maximum shear without splitting the lumber. Complete data on load-carrying capacity are available on request.

OLD FASHIONED METHODS ARE OUT

Here are 11 reasons why Trip-L-Grip do the job better

- 1 TOE NAILING uncertainties are eliminated.
- 2 BRIDGING eliminated in attaching joists on trusses and at same time ties roof securely to trusses.
- 3 GREATER STRENGTH . . . 35% stronger as a joist support than when joists are supported on ledgers . . . develops full strength of nails in shear . . . nail action is not dependent on withdrawal resistance which is much weaker than shear resistance.
- 4 NOTCHING ELIMINATED . . . this wasteful, inefficient method is obsolete.
- 5 SAVES MATERIAL . . . every nail performs to full capacity . . . unnecessary labor eliminated.
- 6 SAVES COSTS in connecting joists to wall . . . ledgers to beams . . . eliminates ledger strip . . . wall height and ineffective cubage cut down when TRIP-L-GRIP used in place of joists resting on beams. Joists equipped with anchors on ground and laid in place for straight nailing.
- 7 INCREASED RIGIDITY results around openings . . . nails are always in shear . . . plaster cracking reduced.
- 8 WIND ANCHORAGE effected . . . rafters tied down tight . . . strong guards against uplifting roofs in high winds . . . particularly effective for farm structures.
- 9 EASILY PLACED . . . scientifically located nail holes and proper nails produce most efficient joints and are easily installed.
- 10 CAMBERED TRUSSES can be built when TRIP-L-GRIP are used to support ceiling joists on bottom chord sides with ceiling held level without expensive workmanship.
- 11 FLEXIBILITY . . . with TRIP-L-GRIP practically all framing combinations can be made . . . if connections are at angle, flanges can be bent to accommodate . . . can be used not only in conventional home construction but for all types of farm buildings, prefabricated housing, timber trusses, boxes and crates, form work, scaffolding, platforms, jigs and templates.

TECO TRIP-L-GRIP Framing Anchors are available from the Timber Engineering Company and through distributors in principal cities.

TIMBER ENGINEERING COMPANY

WOOD RESEARCH
LABORATORIES
Wood Chemistry Timber Testing
Products Development Timber Designing

WASHINGTON

CHICAGO

MANUFACTURERS
AND DISTRIBUTORS
Teco Connectors Framing Anchors
Grooving Tools Termite Shields

NEW ORLEANS

